2019

Traverse Owner's Manual

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chevrolet.ca (Canada)

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Introduction

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For vehicles first sold in Canada, substitute the name "General Motors of Canada Company" for Chevrolet Motor Division wherever it appears in this manual.

This manual describes features that may or may not be on the vehicle because of optional equipment that was not purchased on the vehicle, model variants, country specifications, features/applications that may not be available in your region, or changes subsequent to the printing of this owner's manual.

Refer to the purchase documentation relating to your specific vehicle to confirm the features.

Keep this manual in the vehicle for quick reference.

Canadian Vehicle Owners

A French language manual can be obtained from your dealer, at www.helminc.com, or from:

Propriétaires Canadiens

On peut obtenir un exemplaire de ce guide en français auprès du concessionnaire ou à l'adresse suivante:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170
USA

Using this Manual

To quickly locate information about the vehicle, use the Index in the back of the manual. It is an alphabetical list of what is in the manual and the page number where it can be found.

Litho in U.S.A.
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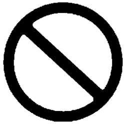
Danger, Warning, and Caution

Warning messages found on vehicle labels and in this manual describe hazards and what to do to avoid or reduce them.

⚠ Danger
Danger indicates a hazard with a high level of risk which will result in serious injury or death.

⚠ Warning
Warning indicates a hazard that could result in injury or death.

Caution
Caution indicates a hazard that could result in property or vehicle damage.



A circle with a slash through it is a safety symbol which means “Do Not,” “Do not do this,” or “Do not let this happen.”

Symbols

The vehicle has components and labels that use symbols instead of text. Symbols are shown along with the text describing the operation or information relating to a specific component, control, message, gauge, or indicator.

📖 **:** Shown when the owner’s manual has additional instructions or information.

📖 **:** Shown when the service manual has additional instructions or information.

⇨ **:** Shown when there is more information on another page — “see page.”

Vehicle Symbol Chart

Here are some additional symbols that may be found on the vehicle and what they mean. See the features in this manual for information.

❄ **:** Air Conditioning System

❄ **:** Air Conditioning Refrigerant Oil

: Airbag Readiness Light

(ABS) **:** Antilock Brake System (ABS)

(!) **:** Brake System Warning Light

: Dispose of Used Components Properly

🌡 **:** Engine Coolant Temperature

🚫 **:** Flame/Fire Prohibited

🔥 **:** Flammable

: Forward Collision Alert

⚡ **:** Fuses

: ISOFIX/LATCH System Child Restraints

: Lane Change Alert

: Lane Departure Warning

: Lane Keep Assist

: Malfunction Indicator Lamp

: Oil Pressure

P : Park Assist

: Pedestrian Ahead Indicator

⏻ : Power

⚠➡ : Rear Cross Traffic Alert

: Registered Technician

: Remote Vehicle Start

: Seat Belt Reminders

: Side Blind Zone Alert

Ⓐ : Start/Stop

(!) : Tire Pressure Monitor

: StabiliTrak/Electronic Stability Control (ESC)

: Under Pressure

: Vehicle Ahead Indicator

In Brief

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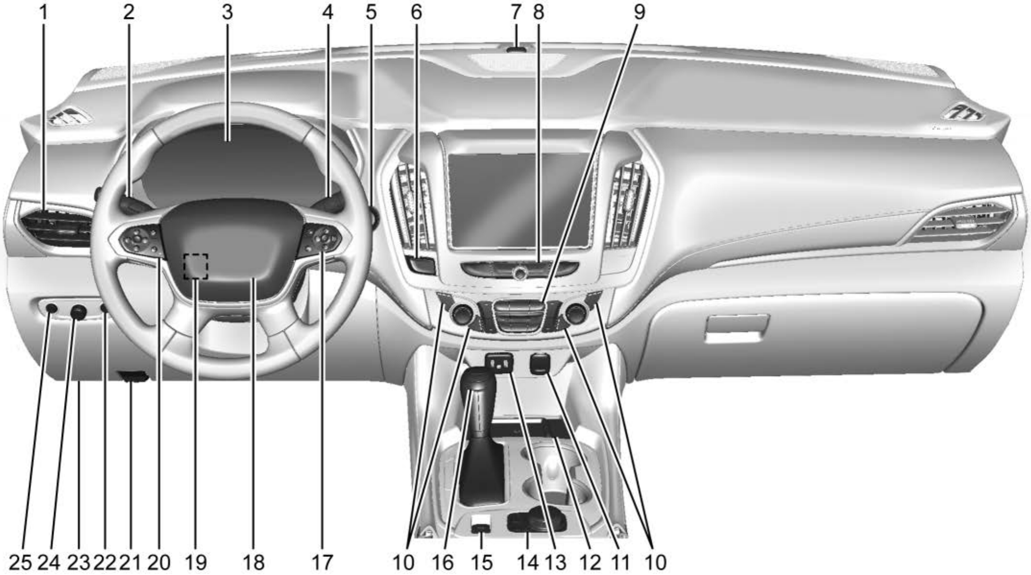
Instrument Panel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1. *Air Vents* ⇨ *206*.
2. Turn Signal Lever. See *Turn and Lane-Change Signals* ⇨ *171*.

   IntelliBeam® System Button (If Equipped). See *Exterior Lamp Controls* ⇨ *167*.
3. *Instrument Cluster* ⇨ *135*.

   Driver Information Center (DIC) Display. See *Driver Information Center (DIC)* ⇨ *151*.
4. *Windshield Wiper/Washer* ⇨ *127*.

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5. ENGINE START/STOP Button. See *Ignition Positions* ⇨ *225*.
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10. *Heated and Ventilated Front Seats* ⇨ *69* (If Equipped).
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17. *Steering Wheel Controls* ⇨ *125*.
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21. Hood Release. See *Hood* ⇨ *290*.
22. *Fog Lamps* ⇨ *172* (If Equipped).
23. Data Link Connector (DLC) (Out of View). See *Malfunction Indicator Lamp (Check Engine Light)* ⇨ *142*.
24. *Exterior Lamp Controls* ⇨ *167*.
25. *Instrument Panel Illumination Control* ⇨ *172*.

Initial Drive Information

This section provides a brief overview about some of the important features that may or may not be on your specific vehicle.

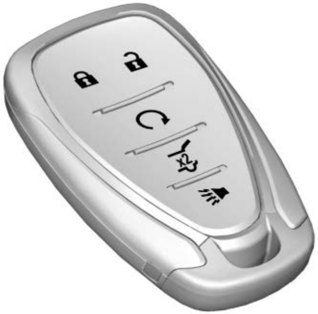
For more detailed information, refer to each of the features which can be found later in this owner's manual.

Stop/Start System

This vehicle has a Stop/Start system to shut off the engine to help conserve fuel. It has components designed for the increased number of starts.

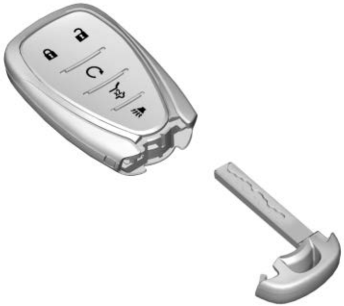
When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When stopped, the tachometer displays AUTO STOP. See *Tachometer* ⇨ *138*. When the brake pedal is released or the accelerator pedal is pressed, the engine will restart. See *Stop/Start System* ⇨ *227* in Driving and Operating.

Remote Keyless Entry (RKE) System



With Remote Start and Power Liftgate Shown

The Remote Keyless Entry (RKE) transmitter may work up to 60 m (197 ft) away from the vehicle.



Press the button on the side of the RKE transmitter to remove the key. Never pull the key out without pressing the button. The key can be used for all locks.

🔓 **:** Press to unlock the driver door or all doors depending on vehicle personalization settings.

For vehicles with the manual liftgate, unlocking all doors will also unlock the liftgate.

🔒 **:** Press to lock all doors.

Lock and unlock feedback can be personalized. See *Vehicle Personalization* ⇨ *155*.

x2 **:** If equipped with the power liftgate, press twice quickly to open or close the liftgate. Press again to stop the power liftgate.

🔊 **:** Press and release to initiate the vehicle locator. Press and hold for at least three seconds to sound the panic alarm. Press 🔊 again to cancel the panic alarm.

See *Keys* ⇨ *29* and *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

Remote Vehicle Start

If equipped, the engine can be started from outside of the vehicle.

Starting the Vehicle

1. Press and release 🔒 on the RKE transmitter.
2. Immediately press and hold ↻ for at least four seconds or until the turn signal lamps flash.

Start the vehicle normally after entering.

When the vehicle starts, the parking lamps will turn on.

Remote start can be extended.

Canceling a Remote Start

To cancel a remote start, do one of the following:

- Press and hold ↻ until the parking lamps turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

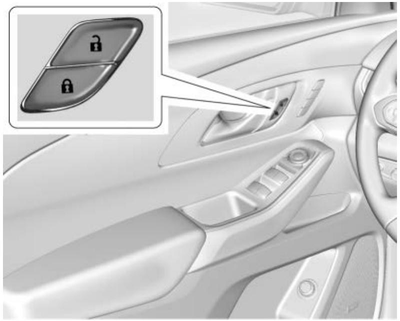
See *Remote Vehicle Start* ⇨ *37*.

Door Locks

To lock or unlock the vehicle from the outside, press 🔒 or 🔓 on the Remote Keyless Entry (RKE) transmitter.

To lock or unlock the vehicle from the inside, press 🔒 or 🔓 on the power door lock switch. Pulling an interior door handle will unlock the door. Pulling the handle again unlatches it.

Power Door Locks

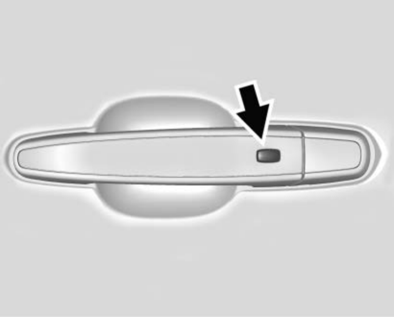


🔒 **:** Press to lock the doors.

🔓 **:** Press to unlock the doors.

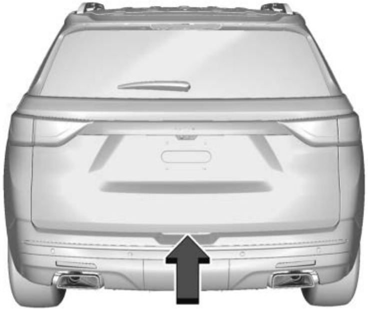
See *Door Locks* ⇨ *38*.

Keyless Access



If equipped, press the button on the driver door handle when the RKE transmitter is within 1 m (3 ft) of the driver door handle. When unlocking from the driver door, the first press unlocks that door; press again within five seconds to unlock all passenger doors. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

Liftgate



To unlock the liftgate, press 🔓 on the power door lock switch or press 🔓 on the Remote Keyless Entry (RKE) transmitter twice to unlock all doors. Press the touch pad on the underside of the liftgate handle and lift up. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

Use the pull cup to lower and close the liftgate. Do not press the touch pad while closing the liftgate. This will cause the liftgate to be unlatched.

Power Liftgate Operation

If equipped with a power liftgate, the switch is on the driver door. The vehicle must be in P (Park).

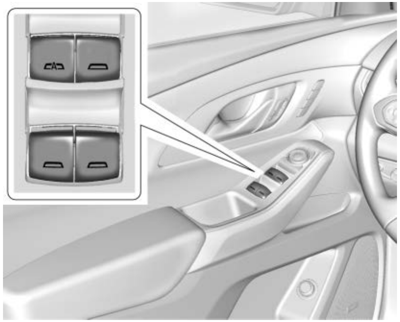
Choose the power liftgate mode by selecting MAX or 3/4. Press . The driver door must be unlocked. On the RKE transmitter press x2 twice quickly until the liftgate starts moving.

Press any liftgate button while the liftgate is moving to stop it. Pressing again reverses the direction.

To close, press on the bottom of the liftgate.

To disable the power liftgate function, select OFF on the liftgate switch. See *Liftgate* ⇨ *43*.

Windows



Power windows work when the ignition is on, in ACC/ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP)* ⇨ *230*.

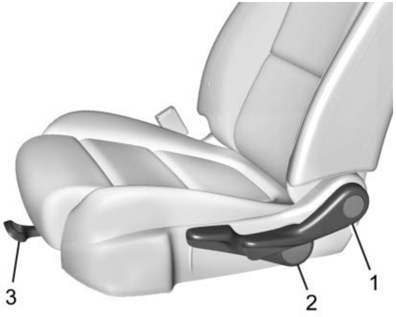
Using the window switch, press to open or pull to close the window.

The windows may be temporarily disabled if they are used repeatedly within a short time.

See *Power Windows* ⇨ *56*.

Seat Adjustment

Manual Seats



1. Seatback Lever
2. Driver Seat Height Adjustment Lever
3. Seat Adjustment Handle

To adjust a manual seat:

1. Lift the handle (3) under the seat to unlock it.
2. Slide the seat to the desired position, and then release the handle (3).
3. Try to move the seat back and forth to be sure it is locked in place.

Move the lever (2) up or down to raise or lower the seat.

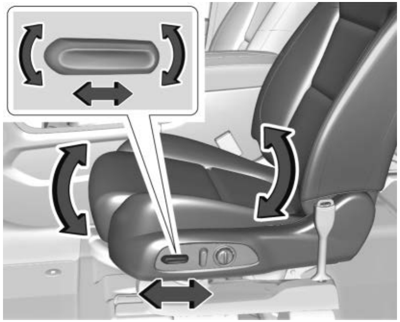
Use the lever (1) to adjust the seatback.

See *Seat Adjustment* ⇨ *63* and *Reclining Seatbacks* ⇨ *64*.

Power Seat Adjustment

⚠ Warning

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.



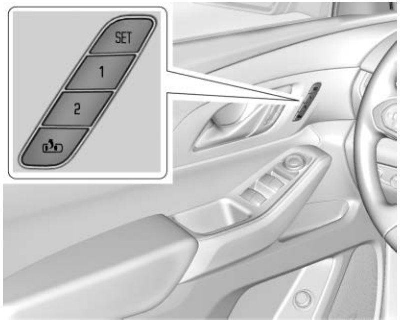
To adjust the seat:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the entire seat by moving the rear of the control up or down.

To adjust the seatback, see *Reclining Seatbacks* ⇨ *64*.

To adjust the lumbar support, see *Lumbar Adjustment* ⇨ *64*.

Memory Features



If equipped, memory seats allow two drivers to save and recall their unique seat positions for driving the vehicle, and a shared exit position for getting out of the vehicle. Other feature positions may also be saved, such as power mirrors and power steering wheel, if equipped. Memory positions are linked to RKE transmitter 1 or 2 for automatic memory recalls.

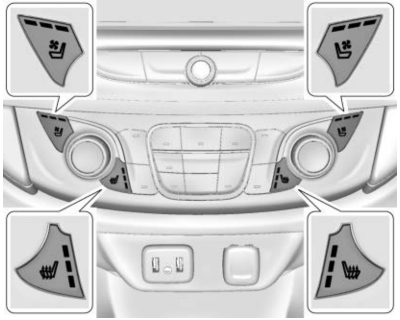
Before saving, adjust all available memory feature positions. Turn the ignition on and then press and release SET; a beep will sound. Then immediately press and hold 1, 2, or 🪑 (Exit) until two beeps sound. To manually recall these positions, press and hold 1, 2, or 🪑 until the saved position is reached.

When Auto Memory Recall is enabled in vehicle personalization, positions previously saved to memory buttons 1 and 2 are recalled when the ignition is changed from off to on or ACC/ ACCESSORY.

When Easy Exit Options is enabled in vehicle personalization, the feature automatically recalls the previously saved exit position when exiting the vehicle.

Memory adjustments may not be available upon delivery or after service until steps in “Saving Memory Positions” section are performed. See *Memory Seats* ⇨ *66*.

Heated and Ventilated Seats



Heated and Ventilated Seat Buttons Shown, Heated Seat Buttons Similar

If available, the buttons are near the climate controls on the center stack. To operate, the engine must be running.

Press ♨ or ♨ to heat the driver or passenger seat.

Press ✤ or ✤, if available, to ventilate the driver or passenger seat. A ventilated seat has a fan that pulls or pushes air through the seat. The air is not cooled.

Press the button once for the highest setting. With each press of the button, the seat will change to the next lower setting, and then to the off setting. The indicator lights next to the buttons indicate three for the highest setting and one for the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

See *Heated and Ventilated Front Seats* ⇨ *69*.

The heated and ventilated front seats can also be programmed to come on during a remote start. See *Vehicle Personalization* ⇨ *155*.

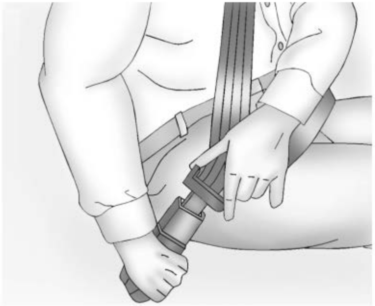
Head Restraint Adjustment

Do not drive until the head restraints for all occupants are installed and adjusted properly.

To achieve a comfortable seating position, change the seatback recline angle as little as necessary while keeping the seat and the head restraint height in the proper position.

See *Head Restraints* ⇨ *61* and *Seat Adjustment* ⇨ *63*.

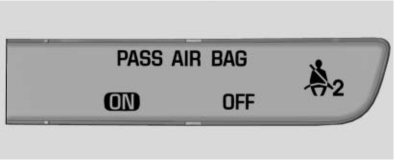
Seat Belts



Refer to the following sections for important information on how to use seat belts properly:

- *Seat Belts* ⇨ *76*
- *How to Wear Seat Belts Properly* ⇨ *77*
- *Lap-Shoulder Belt* ⇨ *79*
- *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105*

Passenger Sensing System

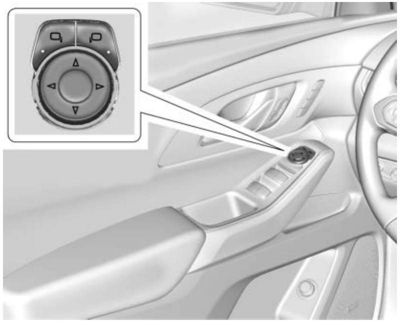


The passenger sensing system turns off the front outboard passenger frontal airbag under certain conditions. No other airbag is affected by the passenger sensing system. See *Passenger Sensing System* ⇨ *92*.

The passenger airbag status indicator will light on the overhead console when the vehicle is started. See *Passenger Airbag Status Indicator* ⇨ *141*.

Mirror Adjustment

Exterior



To adjust the mirrors:

1. Press ▭ or ▭ to choose the driver or passenger mirror.
2. Press the arrows on the control pad to move each mirror in the desired direction.

See *Power Mirrors* ⇨ *52*.

Interior

Adjustment

Adjust the rearview mirror to clearly view the area behind the vehicle.

Manual Rearview Mirror

For vehicles with a manual rearview mirror, push the tab forward for daytime use and pull it rearward for nighttime use to avoid the glare of the headlamps from behind. See *Manual Rearview Mirror* ⇨ *53*.

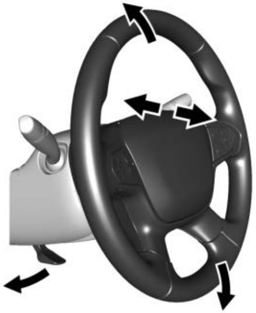
Automatic Dimming Rearview Mirror

If equipped, automatic dimming reduces the glare of the headlamps from behind. The dimming feature comes on when the vehicle is started. See *Automatic Dimming Rearview Mirror* ⇨ *53*.

Rear Camera Mirror

If equipped, this automatic dimming rearview mirror provides a wide angle camera view of the area behind the vehicle. For ease of use, adjust the mirror for a clear view of the area behind the vehicle while the display is off. See *Rear Camera Mirror* ⇨ *54*.

Steering Wheel Adjustment

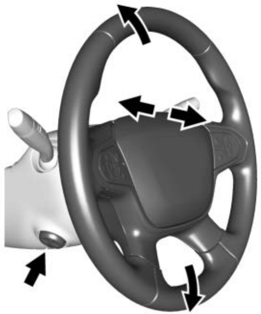


To adjust the steering wheel:

1. Pull the lever down.
2. Move the steering wheel up or down.
3. Pull or push the steering wheel closer or away from you.
4. Pull the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

Power Tilt and Telescoping Steering Wheel



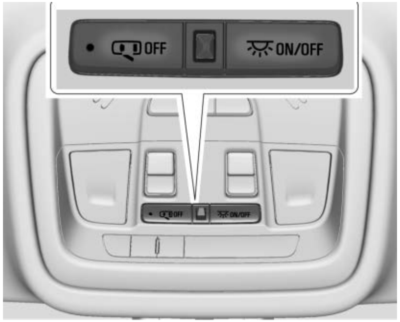
If equipped, the control is on the left side of the steering column.

- Push the control up or down to tilt the steering wheel up or down.
- Push the control forward or rearward to move the steering wheel toward the front or rear of the vehicle.

Do not adjust the steering wheel while driving.

Interior Lighting

Dome Lamps



The dome lamp controls are in the overhead console.

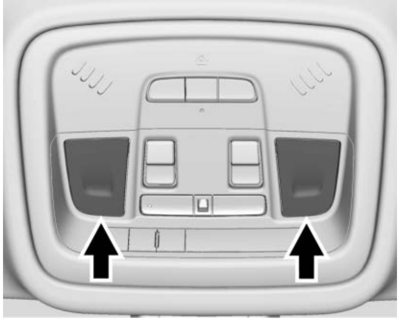
To operate, press the following buttons:

OFF : Press to turn off the dome lamps when a door is open. An indicator light on the button will turn on when the dome lamp override is activated. Press OFF again to deactivate this feature and the indicator light will turn off. The dome lamps will come on when doors are opened.

ON/OFF : Press to turn the dome lamps on manually. Press again to turn the dome lamps off.

Reading Lamps

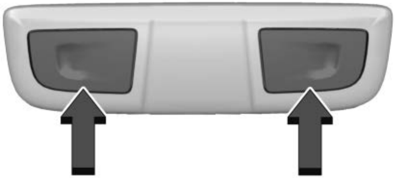
There are reading lamps on the overhead console and over the rear seats. These lamps come on when any door is opened.



Front Reading Lamps

The front reading lamps are in the overhead console.

Press the lamp lenses to turn the front reading lamps on or off.



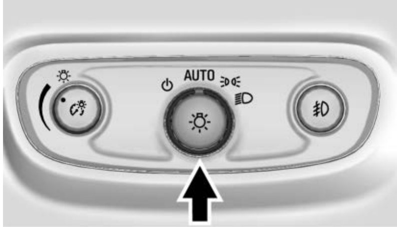
Rear Reading Lamps

The rear reading lamps are over the rear seats.

Press the lamp lens to turn the rear reading lamps on or off.

For more information on interior lighting, see *Instrument Panel Illumination Control* ⇨ *172*.

Exterior Lighting



The exterior lamp control is on the instrument panel to the left of the steering column.

There are four positions.

⏻ : Turns the exterior lamps off and deactivates the AUTO mode. Turn to ⏻ again to reactivate the AUTO mode.

In Canada, the headlamps will automatically reactivate when the vehicle is shifted out of P (Park).

AUTO : Turns the exterior lamps on and off automatically depending on outside lighting.

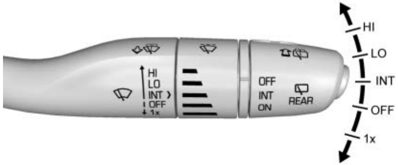
⚞00⚟ : Turns on the parking lamps including all lamps, except the headlamps.

≣D : Turns on the headlamps together with the parking lamps and instrument panel lights.

See:

- *Exterior Lamp Controls ⇨ 167*
- *Daytime Running Lamps (DRL) ⇨ 169*
- *Fog Lamps ⇨ 172*

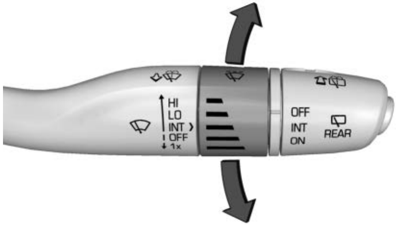
Windshield Wiper/Washer



With the ignition on or in ACC/ ACCESSORY, move the lever to select the wiper speed.

HI : Use for fast wipes.

LO : Use for slow wipes.



INT : Move the windshield wiper lever to INT. Turn the band up for more frequent wipes or down for less frequent wipes.

OFF : Use to turn the wipers off.

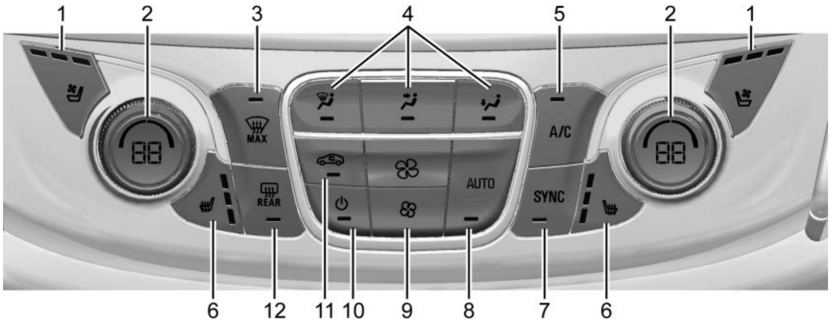
1X : For a single wipe, briefly move the lever down. For several wipes, hold the lever down.

⇩ : Pull the lever toward you to spray windshield washer fluid and activate the wipers.

See *Windshield Wiper/Washer ⇨ 127* and *Rear Window Wiper/ Washer ⇨ 128*.

Climate Controls

The heating, cooling, and ventilation for the vehicle can be controlled with this system.



1. Driver and Passenger Ventilated Seats (If Equipped)
2. Driver and Passenger Temperature Controls
3. MAX Defrost
4. Air Delivery Mode Controls
5. A/C (Air Conditioning)
6. Driver and Passenger Heated Seats (If Equipped)
7. SYNC
8. AUTO (Automatic Operation)
9. Fan Controls
10. Power (On/Off)
11. Recirculation
12. Rear Window Defogger

See *Dual Automatic Climate Control System* ⇨ *201*. For more information about the rear climate control, see *Rear Climate Control System* ⇨ *204*.

Transmission

Electronic Range Select (ERS) Mode

ERS mode allows you to choose the top-gear limit of the transmission and the vehicle's speed while driving downhill or towing a trailer. The vehicle has an electronic shift position indicator within the instrument cluster. When using the ERS mode a number will display next to the L, indicating the maximum gear allowed for the range selected.

To use this feature:

1. Move the shift lever to L (Low).
2. Press + (Plus) or − (Minus) on the shift lever to increase or decrease the gear range available.

See *Manual Mode* ⇨ *235*.

Vehicle Features

Infotainment System

Base radio information is included in this manual. See the infotainment manual for information on other available infotainment systems.

Read the following pages to become familiar with these features.

> **⚠ Warning**
>
> Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some functions when driving. These functions may gray out when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, and infotainment display controls.
- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command if equipped with Bluetooth phone capability.
- Set up your Bluetooth, CarPlay, or Android Auto device. Some devices will require a series of setup steps to be taken or a default app to be chosen prior to using the feature. Not completing these steps could prevent the feature from functioning properly.

See *Defensive Driving* ⇨ *210*.

To play the infotainment system with the ignition off, see *Retained Accessory Power (RAP)* ⇨ *230*.

Radio(s)

⏻ : Press to turn the system on or mute the audio. Press and hold to turn the system off. Turn to increase or decrease the volume.

⏮ : Press and release to go to the previous station, channel, or song. Press and hold to fast seek the previous strongest station, channel, or song.

⏭ : Press and release to go to the next station, channel, or song. Press and hold to fast seek the next strongest station, channel, or song.

Source : Touch to choose between available sources.

⌂ : Press to go to the Home Page.

☎ **:** Press and release to access the phone on the infotainment display, answer an incoming call, or access the device home screen.

See *Overview* ⇨ *178*.

Satellite Radio

If equipped, vehicles with a SiriusXM satellite radio tuner and a valid SiriusXM satellite radio subscription can receive SiriusXM programming.

SiriusXM Satellite Radio Service

SiriusXM is a satellite radio service based in the 48 contiguous United States and 10 Canadian provinces. SiriusXM satellite radio has a wide variety of programming and commercial-free music, coast to coast, and in digital-quality sound. A fee is required to receive the SiriusXM service.

Refer to:

- www.siriusxm.com or call 1-888-601-6296 (U.S.).
- www.siriusxm.ca or call 1-877-438-9677 (Canada).

See *Satellite Radio* ⇨ *182*.

Portable Audio Devices

This vehicle has USB ports in the center stack. There is also a USB port in the storage area behind the radio. External devices such as iPods, MP3 players, and USB storage devices may be connected. There are also charging only USB ports on the rear of the center console and in the third row seating area.

See *USB Port* ⇨ *185*.

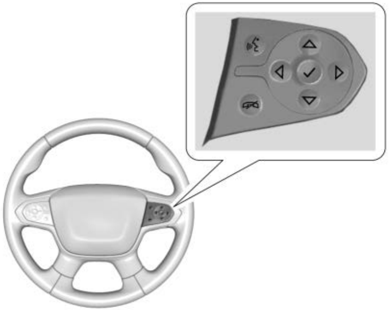
Bluetooth

The Bluetooth system allows users with a Bluetooth-enabled mobile phone to make and receive hands-free calls using the vehicle audio system and controls.

The Bluetooth-enabled mobile phone must be paired with the in-vehicle Bluetooth system before it can be used in the vehicle. Not all phones will support all functions.

See *Bluetooth (Overview)* ⇨ *192* or *Bluetooth (Infotainment Controls)* ⇨ *193*.

Steering Wheel Controls



If equipped, some audio controls can be adjusted at the steering wheel.

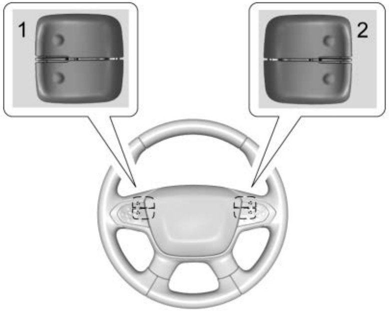
🗣 : If equipped with OnStar or a Bluetooth system, press to interact with those systems. See *OnStar Overview* ⇨ *401*, *Bluetooth (Overview)* ⇨ *192* or *Bluetooth (Infotainment Controls)* ⇨ *193*, or “Bluetooth (Overview)” in the infotainment manual.

☎ : Press to reject an incoming call, or end a current call. Press to mute or unmute the infotainment system when not on a call.

◁ or ▷ : Press to go to the previous or next menu option.

△ or ▽ : Press to go to the next or previous selection.

✓ : Press to select a highlighted menu option.

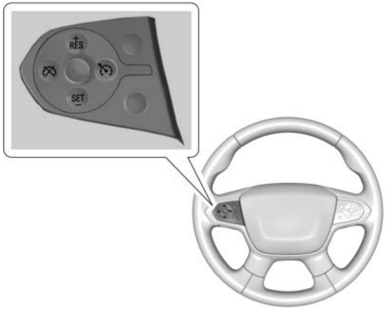


The favorite and volume switches are on the back of the steering wheel.

1. Favorite: When on a radio source, press to select the next or previous favorite. When on a media source, press to select the next or previous track.
2. Volume: Press to increase or decrease the volume.

See *Steering Wheel Controls* ⇨ *125*.

Cruise Control



⏲ : Press to turn the system on and off. A white indicator appears in the instrument cluster when cruise is turned on.

RES+ : If there is a set speed in memory, press briefly to resume to that speed or press and hold to accelerate. If the cruise control is already active, use to increase vehicle speed.

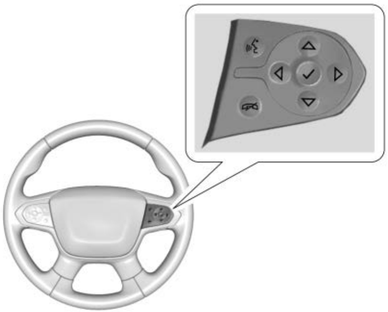
SET− : Press briefly to set the speed and activate cruise control. If the cruise control is already active, use to decrease vehicle speed.

: Press to disengage cruise control without erasing the set speed from memory.

See *Cruise Control* ⇨ *246* or *Adaptive Cruise Control* ⇨ *248* (If Equipped).

Driver Information Center (DIC)

The DIC display is in the instrument cluster. It shows the status of many vehicle systems.



△ or ▽ : Press to move up or down in a list.

◁ or ▷ : Press to move between the interactive display zones in the cluster.

✓ : Press to open a menu or select a menu item. Press and hold to reset values on certain screens.

See *Driver Information Center (DIC)* ⇨ *151*.

Forward Collision Alert (FCA) System

If equipped, FCA may help avoid or reduce the harm caused by front-end crashes. FCA provides a green indicator, 🚘, when a vehicle is detected ahead. This indicator displays amber if you follow a vehicle much too closely. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps.

See *Forward Collision Alert (FCA) System* ⇨ *261*.

Forward Automatic Braking (FAB)

If the vehicle has Forward Collision Alert (FCA), it also has FAB, which includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling in the same direction that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear.

See *Forward Automatic Braking (FAB)* ⇨ *263*.

Front Pedestrian Braking (FPB) System

If equipped, the FPB system may help avoid or reduce the harm caused by front-end crashes with nearby pedestrians when driving in a forward gear. FPB displays an amber indicator, 🚶, when a nearby pedestrian is detected directly ahead. When approaching a detected pedestrian too quickly, FPB provides a red flashing alert on the windshield and rapidly beeps. FPB can provide a boost to braking or automatically brake the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ *265*.

Lane Keep Assist (LKA)

If equipped, LKA may help avoid crashes due to unintentional lane departures. It may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide a Lane Departure Warning (LDW) alert as the lane marking is crossed. The system will not assist or alert if it detects that you are actively steering. Override LKA by turning the steering wheel. LKA uses a camera to detect lane markings between 60 km/h (37 mph) and 180 km/h (112 mph).

See *Lane Departure Warning (LDW)* ⇨ *269* and *Lane Keep Assist (LKA)* ⇨ *269*.

Lane Change Alert (LCA)

If equipped, the LCA system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with moving vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind. The LCA warning display will light up in the corresponding outside mirror and will flash if the turn signal is on. The Side Blind Zone Alert (SBZA) system is included as part of the LCA system.

See *Side Blind Zone Alert (SBZA)* ⇨ *267* and *Lane Change Alert (LCA)* ⇨ *267*.

Surround Vision

If equipped, views around the vehicle appear in the infotainment display to aid with parking and low-speed maneuvers.

See “Surround Vision” under *Assistance Systems for Parking or Backing* ⇨ *258*.

Front Vision Camera

If equipped, a view of the area in front of the vehicle appears on the infotainment display to aid with parking and low-speed maneuvers.

See “Front Vision Camera” under *Assistance Systems for Parking or Backing* ⇨ *258*.

Rear Vision Camera (RVC)

The RVC displays a view of the area behind the vehicle on the infotainment display when the vehicle is shifted into R (Reverse) to aid with parking and low-speed backing maneuvers.

See *Assistance Systems for Parking or Backing* ⇨ *258*.

Rear Cross Traffic Alert (RCTA) System

If equipped, the RCTA system shows a triangle with an arrow on the infotainment display to warn of traffic behind your vehicle that may cross your vehicle's path while in R (Reverse). In addition, beeps will sound, or the driver seat will pulse.

See *Assistance Systems for Parking or Backing* ⇨ *258*.

Park Assist

If equipped, Rear Park Assist (RPA) uses sensors on the rear bumper to assist with parking and avoiding objects while in R (Reverse). It operates at speeds less than 8 km/h (5 mph). RPA may display a warning triangle on the infotainment display and a graphic on the instrument cluster to provide the object distance. In addition, multiple beeps or seat pulses may occur if very close to an object.

See *Assistance Systems for Parking or Backing* ⇨ *258*.

Power Outlets

The vehicle has two 12-volt accessory power outlets, which can be used to plug in electrical equipment, such as a cell phone or MP3 player.

The power outlets are located:

- On the center stack below the climate controls.
- In the rear cargo area.

To use the outlets, lift the cover.

See *Power Outlets* ⇨ *130*.

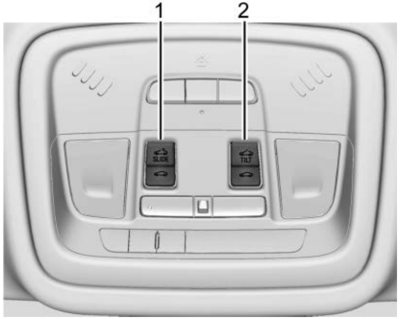
Universal Remote System

If equipped, the Universal Remote System allows for garage door openers, security systems, and home automation devices to be programmed to work with these buttons in the vehicle.

See *Universal Remote System* ⇨ *163*.

Sunroof

If equipped, the ignition must be on or in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active to operate the sunroof. See *Ignition Positions* ⇨ *225* and *Retained Accessory Power (RAP)* ⇨ *230*.



1. Sunroof Switch (SLIDE)
2. Vent Switch (TILT)

Slide Switch

Express-Open/Express-Close : Press and release SLIDE (1) to express-open the sunroof. Press and release 🚗 (1) to express-close the sunroof.

Open/Close (Manual Mode) : Fully press SLIDE (1) to open the sunroof. Release to stop at the desired position. Fully press 🚗 (1) to close the sunroof. Release to stop at the desired position.

Tilt Switch

Vent Feature : Press TILT (2) to vent the sunroof. Press again and hold to open the sunroof. Release to stop at the desired position. Press 🚗 (2) to express-close the sunroof. Press again to stop the movement.

See *Sunroof* ⇨ *58*.

Performance and Maintenance

Traction Control/ Electronic Stability Control

The Traction Control System (TCS) limits wheel spin. The system is on when the vehicle is started.

The StabiliTrak/Electronic Stability Control (ESC) system assists with directional control of the vehicle in difficult driving conditions. The system is on when the vehicle is started.

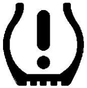
- To turn off TCS, press and release OFF on the center console. TC illuminates in the instrument cluster.
- Press and release OFF again to turn TCS back on.
- To turn off both TCS and StabiliTrak/ESC, press and hold OFF until OFF and TC illuminate in the instrument cluster.

- Press and release again to turn on both systems.

See *Traction Control/Electronic Stability Control* ⇨ *241*.

Tire Pressure Monitor

This vehicle may have a Tire Pressure Monitor System (TPMS).



The low tire pressure warning light alerts to a significant loss in pressure of one of the vehicle's tires. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ *220*. The warning light will remain on until the tire pressure is corrected.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This may be an early indicator that the tire pressures are getting low and the tires need to be inflated to the proper pressure.

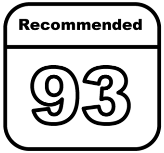
The TPMS does not replace normal monthly tire maintenance. Maintain the correct tire pressures.

See *Tire Pressure Monitor System* ⇨ *333*.

Tire Fill Alert (If Equipped)

This feature provides visual and audible alerts outside the vehicle to help when inflating an underinflated tire to the recommended cold tire pressure. See “Tire Fill Alert (If Equipped)” under *Tire Pressure Monitor Operation* ⇨ *334*.

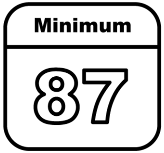
Fuel (2.0L L4 Engine)



Premium Recommended

Use premium 93 octane — (R+M)/2 — unleaded gasoline in your vehicle. TOP TIER Detergent Gasoline is recommended. Unleaded gasoline with an octane rating as low as 87 may be used, but it will reduce performance and fuel economy. See *Recommended Fuel (3.6L V6 Engine)* ⇨ *272* or *Recommended Fuel (2.0L L4 Engine)* ⇨ *272*.

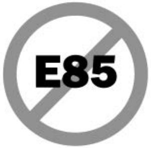
Fuel (3.6L V6 Engine)



Regular Unleaded Fuel

Use only Regular 87 octane — (R+M)/2 — or higher unleaded gasoline in your vehicle. TOP TIER Detergent Gasoline is recommended. Do not use gasoline with an octane rating lower as it will result in reduced performance and lower fuel economy. See *Recommended Fuel (3.6L V6 Engine)* ⇨ *272* or *Recommended Fuel (2.0L L4 Engine)* ⇨ *272*.

E85 or FlexFuel



No E85 or FlexFuel

Gasoline-ethanol fuel blends greater than E15 (15% ethanol by volume), such as E85, cannot be used in this vehicle.

Engine Oil Life System

The engine oil life system calculates engine oil life based on vehicle use and displays the CHANGE ENGINE OIL SOON message when it is time to change the engine oil and filter. The oil life system should be reset to 100% only following an oil change.

Resetting the Oil Life System

1. Display the REMAINING OIL LIFE on the DIC. See *Driver Information Center (DIC)* ⇨ *151*.
2. Press and hold ✓ on the DIC while the Oil Life display is active. The oil life will change to 100%.

See *Engine Oil Life System* ⇨ *296*.

Driving for Better Fuel Economy

Driving habits can affect fuel mileage. Here are some driving tips to get the best fuel economy possible.

- Set the climate controls to the desired temperature after the engine is started, or turn them off when not required.
- On AWD vehicles, see *Driver Mode Control* ⇨ *242*.
- Avoid fast starts and accelerate smoothly.
- Brake gradually and avoid abrupt stops.
- Avoid idling the engine for long periods of time.
- When road and weather conditions are appropriate, use cruise control.
- Always follow posted speed limits or drive more slowly when conditions require.
- Keep vehicle tires properly inflated.

- Combine several trips into a single trip.
- Replace the vehicle's tires with the same TPC Spec number molded into the tire's sidewall near the size.
- Follow recommended scheduled maintenance.

Roadside Assistance Program

U.S.: 1-800-243-8872

TTY Users (U.S. Only):
1-888-889-2438

Canada: 1-800-268-6800

New Chevrolet owners are automatically enrolled in the Roadside Assistance Program.

See *Roadside Assistance Program* ⇨ *391*.

Keys, Doors, and Windows

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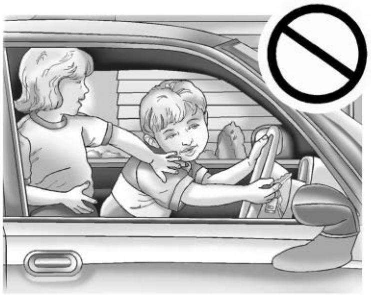
Keys and Locks

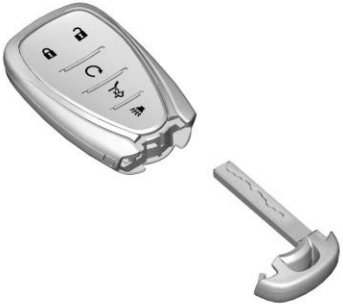
Keys

⚠ Warning

Leaving children in a vehicle with a Remote Keyless Entry (RKE) transmitter is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the RKE transmitter in the vehicle, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with an RKE transmitter.



The key that is part of the Remote Keyless Entry (RKE) transmitter can be used for all locks.



Remove the key by pressing the button on the side of the RKE transmitter near the bottom and pull the key out. Never pull the key out without pressing the button.

See your dealer if a new transmitter is needed.

If locked out of the vehicle, see *Roadside Assistance Program* ⇨ *391*.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ *401*.

Remote Keyless Entry (RKE) System

See *Radio Frequency Statement* ⇨ *397*.

If there is a decrease in the Remote Keyless Entry (RKE) operating range:

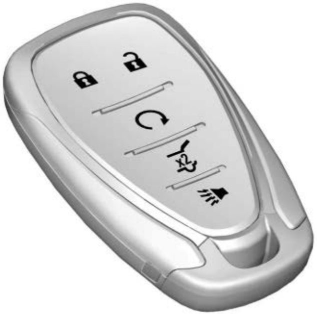
- Check the distance. The transmitter may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the transmitter's battery. See “Battery Replacement” later in this section.
- If the transmitter is still not working correctly, see your dealer or a qualified technician for service.

Remote Keyless Entry (RKE) System Operation

The Keyless Access system allows for vehicle entry when the Remote Keyless Entry (RKE) transmitter is within 1 m (3 ft). See “Keyless Access Operation” later in this section.

The RKE transmitter may work up to 60 m (197 ft) away from the vehicle.

Other conditions can affect the performance of the transmitter. See *Remote Keyless Entry (RKE) System* ⇨ *30*.



With Remote Start and Power Liftgate Shown

🔒 **:** Press to lock all doors. The turn signal indicators may flash and/or the horn may sound on the second press to indicate locking. See *Vehicle Personalization* ⇨ *155*. If the driver door is open when 🔒 is pressed, and Unlocked Door Anti-Lockout is enabled through vehicle personalization, all doors will lock and then the driver door will immediately unlock. See *Vehicle Personalization* ⇨ *155*. If a passenger door is open when 🔒 is pressed, all doors lock.

Pressing 🔒 may also arm the theft-deterrent system. See *Vehicle Alarm System* ⇨ *50*.

🔓 **:** Press to unlock the driver door. Press unlock again within five seconds to unlock all doors. The RKE transmitter can be programmed to unlock all doors on the first button press. See *Vehicle Personalization* ⇨ *155*. The turn signal indicators may flash to indicate unlocking has occurred. See *Vehicle Personalization* ⇨ *155*.

Pressing 🔓 may also disarm the theft-deterrent system. See *Vehicle Alarm System* ⇨ *50*.

For vehicles with the manual liftgate, unlocking all doors will also unlock the liftgate.

x2 **:** If equipped, press twice quickly to open or close the liftgate. Press again to stop the power liftgate.

🔊 **:** Press and release one time to initiate vehicle locator. The exterior lamps flash and the horn chirps three times. Press and hold 🔊 for at least three seconds to sound the panic alarm. The horn sounds and the turn signals flash for 30 seconds, or until 🔊 is pressed again or the vehicle is started.

↻ **:** If equipped, first press and release 🔒 then immediately press and hold ↻ for at least four seconds to start the engine from outside the vehicle using the RKE transmitter. See *Remote Vehicle Start* ⇨ *37*.

Keyless Access Operation

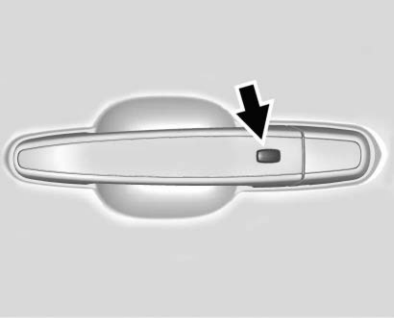
The Keyless Access system allows the doors to be locked and unlocked and the liftgate to be accessed without removing the RKE transmitter from a pocket, purse, briefcase, etc. The RKE transmitter should be within 1 m (3 ft) of the liftgate or door being opened.

Keyless Access can be programmed to unlock all doors on the first lock/unlock press from the driver door. See *Vehicle Personalization* ⇨ *155*.

If equipped with memory seats, RKE transmitters 1 and 2 are linked to seating positions of memory 1 or 2. See *Memory Seats* ⇨ *66*.

Keyless Unlocking/Locking from the Driver Door

When the doors are locked and the RKE transmitter is within 1 m (3 ft) of the driver door handle, pressing the lock/unlock button on the driver door handle will unlock the driver door. If the lock/unlock button is pressed again within five seconds, all passenger doors will unlock.



Driver Shown, Passenger Similar

Pressing the lock/unlock button will cause all doors to lock if any of the following occur:

- It has been no more than five seconds since the first lock/unlock button press.
- Two lock/unlock button presses were used to unlock all doors.
- Any vehicle door has opened and all doors are now closed.

Keyless Unlocking/Locking from Passenger Doors

When the doors are locked and the RKE transmitter is within 1 m (3 ft) of the door handle, pressing the lock/unlock button on that door handle will unlock all doors. Pressing the lock/unlock button will cause all doors to lock if any of the following occur:

- The lock/unlock button was used to unlock all doors.
- Any vehicle door has opened and all doors are now closed.

Disable/Enable Keyless Unlocking of Exterior Door Handles and Liftgate

If equipped, keyless unlocking of the exterior door handles and liftgate can be disabled and enabled.

Disabling Keyless Unlocking:

With the vehicle off, press and hold 🔒 and 🔓 on the RKE transmitter at the same time for approximately three seconds. The turn signal lamps will flash four times quickly to indicate access is

disabled. Using any exterior handle to unlock the doors or open the liftgate will cause the turn signal lamps to flash four times quickly, indicating access is disabled.
If disabled, disarm the alarm system before starting the vehicle.

Enabling Keyless Unlocking:

With the vehicle off, press and hold 🔒 and 🔓 on the RKE transmitter at the same time for approximately three seconds. The turn signal lamps will flash twice quickly to indicate access is enabled.

Passive Locking

This vehicle will lock several seconds after all doors are closed if the vehicle is off and at least one RKE transmitter has been removed or none remain in the interior.

If other electronic devices interfere with the RKE transmitter signal, the vehicle may not detect the RKE transmitter inside the vehicle.
If passive locking is enabled, the doors may lock with the RKE transmitter inside the vehicle. Do not leave the RKE transmitter in an unattended vehicle.

To customize the doors to automatically lock when exiting the vehicle, see “Remote Lock, Unlock, Start” under *Vehicle Personalization* ⇨ *155*.

Temporary Disable of Passive Locking

Temporarily disable passive locking by pressing and holding 🔓 on the interior door switch with a door open for at least four seconds, or until three chimes are heard. Passive locking will then remain disabled until 🔒 on the interior door is pressed, or until the vehicle is turned on.

Remote Left in Vehicle Alert

When the vehicle is turned off and an RKE transmitter is left in the vehicle, the horn will chirp three times after all doors are closed. To turn on or off, see *Vehicle Personalization* ⇨ *155*.

Remote No Longer in Vehicle Alert

If the vehicle is on with a door open, and then all doors are closed, the vehicle will check for RKE transmitter(s) inside. If an RKE transmitter is not detected, the Driver Information Center (DIC) will display NO REMOTE DETECTED and the horn will chirp three times. This occurs only once each time the vehicle is driven. See *Vehicle Personalization* ⇨ *155*.

Keyless Liftgate Opening

Press the touch pad on the liftgate handle to open the liftgate if the RKE transmitter is within 1 m (3 ft).

Key Access

To access a vehicle with a weak transmitter battery, see *Door Locks* ⇨ *38*.

Programming Transmitters to the Vehicle

Only RKE transmitters programmed to the vehicle will work. If a transmitter is lost or stolen, a replacement can be purchased and programmed through your dealer. The vehicle can be reprogrammed so that lost or stolen transmitters no longer work. Each vehicle can have up to eight transmitters matched to it.

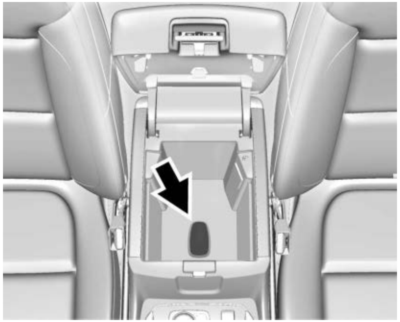
Programming with Recognized Transmitters

A new transmitter can be programmed to the vehicle when there are two recognized transmitters.

To program, the vehicle must be off and all of the transmitters, both currently recognized and new, must be with you.

1. Remove the key lock cylinder cap on the driver door handle. See *Door Locks* ⇨ *38*. Place the two recognized transmitters in the transmitter pocket.
2. Insert the vehicle key of the transmitter into the key lock cylinder on the driver door handle and turn the key, counterclockwise, to the unlock position five times within 10 seconds.

   The DIC displays READY FOR REMOTE #2, 3, 4, ETC.



3. Place the new transmitter into the transmitter pocket. The transmitter pocket is inside the center console storage area between the driver and front passenger seats, underneath the liner.
4. Press ENGINE START/STOP. When the transmitter is learned the DIC display will show that it is ready to program the next transmitter.
5. Remove the transmitter from the transmitter pocket and press the transmitter 🔓 or 🔒 button.

   To program additional transmitters, repeat Steps 3–5.

   When all additional transmitters are programmed, press and hold ENGINE START/STOP for 12 seconds to exit programming mode.
6. Put the key back into the transmitter.
7. Replace the key lock cylinder cap. See *Door Locks* ⇨ *38*.

Programming without Recognized Transmitters

If two currently recognized transmitters are not available, follow this procedure to program up to eight transmitters. This feature is not available in Canada. This procedure will take approximately 30 minutes to complete. The vehicle must be off and all of the transmitters you wish to program must be with you.

1. Remove the key lock cylinder cap on the driver door handle. See *Door Locks* ⇨ *38*. Insert the vehicle key of the transmitter into the key lock cylinder on the driver door handle and turn the key, counterclockwise, to the unlock position five times within 10 seconds.

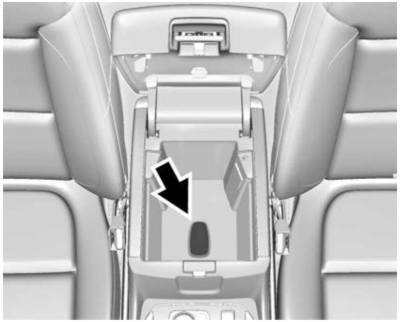
   The DIC displays REMOTE LEARN PENDING, PLEASE WAIT.

2. Wait for 10 minutes until the DIC displays PRESS ENGINE START BUTTON TO LEARN and then press ENGINE START/STOP.

   The DIC will again display REMOTE LEARN PENDING, PLEASE WAIT.

3. Repeat Step 2 two additional times. After the third time all previously known transmitters will no longer work with the vehicle. Remaining transmitters can be relearned during the next steps.

   The DIC display should now show READY FOR REMOTE # 1.



4. Place the new transmitter into the transmitter pocket. The transmitter pocket is inside the center console storage area between the driver and front passenger seats, underneath the liner.

5. Press ENGINE START/STOP. When the transmitter is learned the DIC display will show that it is ready to program the next transmitter.

6. Remove the transmitter from the transmitter pocket and press the transmitter 🔓 or 🔒 button.

   To program additional transmitters, repeat Steps 4–6.

   When all additional transmitters are programmed, press and hold ENGINE START/STOP for 12 seconds to exit programming mode.

7. Put the key back into the transmitter.

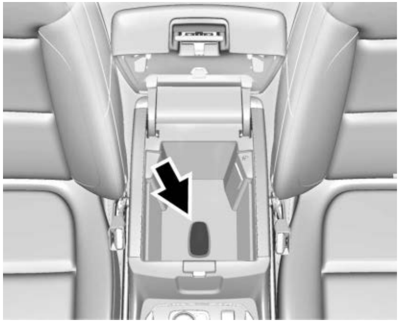
8. Replace the key lock cylinder cap. See *Door Locks* ⇨ *38*.

Starting the Vehicle with a Low Transmitter Battery

When the vehicle is started, if the transmitter battery is weak, the DIC may display NO REMOTE DETECTED or NO REMOTE KEY WAS DETECTED PLACE KEY IN TRANSMITTER POCKET THEN START YOUR VEHICLE. The DIC may also display REPLACE BATTERY IN REMOTE KEY.

To start the vehicle:

1. Open the center console storage area by opening the armrest.



2. Place the transmitter in the transmitter pocket.
3. With the vehicle in P (Park) or N (Neutral), press the brake pedal and ENGINE START/STOP.

   Replace the transmitter battery as soon as possible.

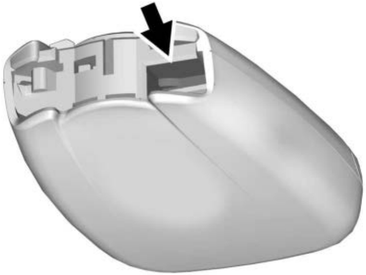
Battery Replacement

Replace the battery if the DIC displays REPLACE BATTERY IN REMOTE KEY.

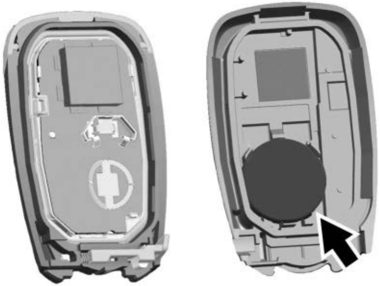
Caution

When replacing the battery, do not touch any of the circuitry on the transmitter. Static from your body could damage the transmitter.

The battery is not rechargeable. To replace the battery:



1. Press the button on the side of the RKE transmitter and pull the key out. Never pull the key out without pressing the button.
2. Separate the two halves of the transmitter using a flat tool inserted into the area near the key slot.



3. Remove the battery by pushing on the battery and sliding it toward the bottom of the transmitter.

4. Insert the new battery, positive side facing the back cover. Push the battery down until it is held in place. Replace with a CR2032 or equivalent battery.
5. Snap the battery cover back on to the transmitter.

Remote Vehicle Start

If equipped, this feature allows the engine to be started from outside of the vehicle.

↻ : This button will be on the RKE transmitter if the vehicle has remote start.

The climate control system will use the previous settings during a remote start. The rear defog may come on during a remote start based on cold ambient conditions. The rear fog indicator light does not come on during a remote start.

If the vehicle has auto heated or ventilated seats, they may come on during a remote start. See *Heated and Ventilated Front Seats* ⇨ *69*.

If equipped with a remote start heated steering wheel, it may come on during a remote start when it is cold outside, if enabled. See *Heated Steering Wheel* ⇨ *126* and *Vehicle Personalization* ⇨ *155*.

Laws in some local communities may restrict the use of remote starters. For example, some laws may require a person using remote start to have the vehicle in view. Check local regulations for any requirements.

Other conditions can affect the performance of the transmitter. See *Remote Keyless Entry (RKE) System* ⇨ *30*.

Starting the Engine Using Remote Start

1. Press and release 🔒 on the RKE transmitter.
2. Immediately press and hold ↻ for at least four seconds or until the turn signal lamps flash. The turn signal lamps flashing confirms the request to remote start the vehicle has been received.

   During the remote start the doors will be locked and the parking lamps will remain on as long as the engine is running.

   The engine will shut off after 15 minutes unless a time extension is done or the vehicle is started.
3. With the RKE transmitter in the vehicle, press the brake pedal and start the vehicle to drive.

Extending Engine Run Time

The engine run time can also be extended by another 15 minutes, if during the first 15 minutes Steps 1 and 2 are repeated while the engine is still running. An extension can be requested 30 seconds after starting. This provides a total of 30 minutes.

The remote start can only be extended once.

When the remote start is extended, the second 15-minute period is added on to the first 15 minutes for a total of 30 minutes.

A maximum of two remote starts, or a remote start with an extension, are allowed between ignition cycles.

The ignition must be turned on and then off before the remote start procedure can be used again.

Canceling a Remote Start

To cancel a remote start, do any of the following:

- Press and hold ↻ until the parking lamps turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

Conditions in Which Remote Start Will Not Work

The remote start will not operate if any of the following occur:

- An RKE transmitter is in the vehicle.
- The hood is not closed.
- The hazard warning flashers are on.
- There is an emission control system malfunction.
- The engine coolant temperature is too high.
- The oil pressure is low.
- Two remote vehicle starts or a start with an extension have already been used.
- The vehicle is not in P (Park).

Door Locks

⚠ Warning

Unlocked doors can be dangerous.

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.
- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

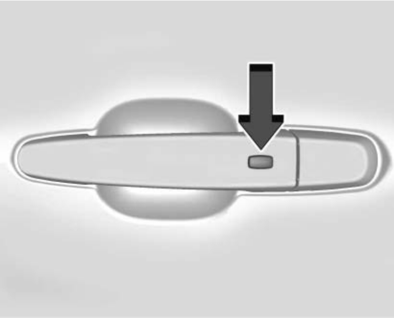
To lock or unlock the doors from the outside:

- Press 🔒 or 🔓 on the Remote Keyless Entry (RKE) transmitter. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.
- Use the key in the driver door. The key lock cylinder is covered with a cap.

To lock or unlock the doors from the inside:

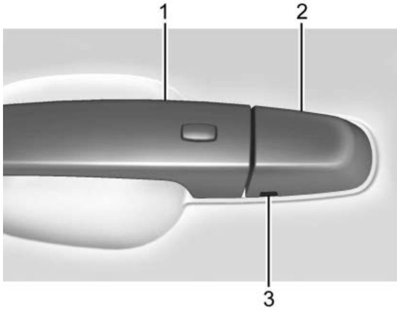
- Press 🔒 or 🔓 on the power door lock switch.
- Push down on a door lock knob to lock a door.
- Pull the door handle once to unlock the door. Pull the handle again to unlatch it.

Keyless Access



If equipped, the RKE transmitter must be within 1 m (3 ft) of the liftgate or door being opened. Press the button on the door handle to open. See "Keyless Access Operation" in *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

Driver Door Key Lock Cylinder Access (In Case of Dead Battery)

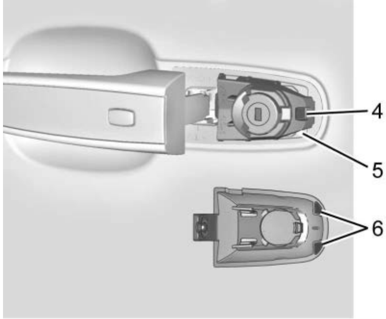


To access the driver door key lock cylinder:

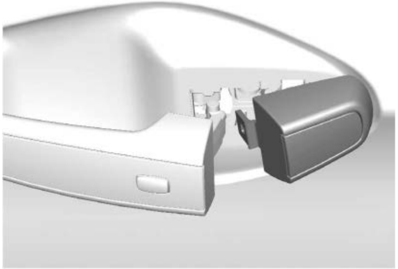
1. Pull the door handle (1) to the open position and hold it open until cap removal is complete.
2. Insert the key into the slot (3) on the bottom of the cap (2) and lift the key upward.
3. Move the cap (2) rearward and remove.
4. Use the key in the cylinder.

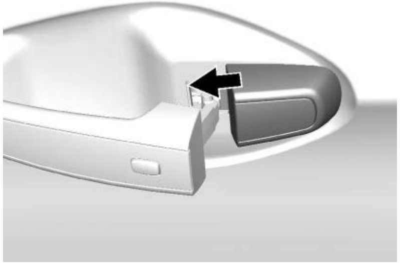
To replace the cap:

1. Pull the door handle (1) to the open position and hold it open until cap installation is complete.



2. Insert the two tabs (6) at the back of the cap between the seal (5) and the metal base (4).



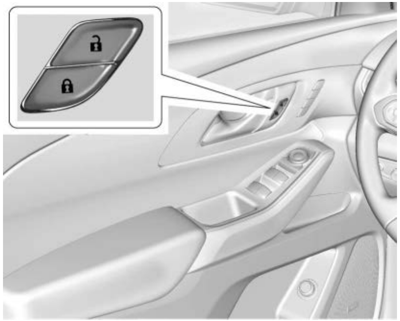


3. Slide the cap forward and press the forward edge to install the cap in place.
4. Release the door handle.
5. Check that the cap is secure.

Free-Turning Locks

The door key lock cylinder turns freely when either the wrong key is used, or the correct key is not fully inserted. The free-turning door lock feature prevents the lock from being forced open. To reset the lock, turn it to the vertical position with the correct key fully inserted. Remove the key and insert it again. If this does not reset the lock, turn the key halfway around in the cylinder and repeat the reset procedure.

Power Door Locks



🔒 **:** Press to lock the doors.

🔓 **:** Press to unlock the doors.

Delayed Locking

This feature delays the locking of the doors until five seconds after all doors are closed.

Delayed locking can only be turned on when the Unlocked Door Anti-Lockout feature has been turned off.

When 🔒 is pressed on the power door lock switch while the door is open, a chime will sound three times indicating delayed locking is active.

The doors will lock automatically five seconds after all doors are closed. If a door is reopened before that time, the five-second timer will reset when all doors are closed again.

Press 🔒 on the door lock switch again or press 🔒 on the RKE transmitter to lock the doors immediately.

This feature can also be programmed. See *Vehicle Personalization* ⇨ *155*.

Automatic Door Locks

The vehicle is programmed so that when the doors are closed, the ignition is on, and the shift lever is moved out of P (Park), the doors will lock.

If a vehicle door is unlocked and then opened and closed, the doors will lock either when your foot is removed from the brake or the vehicle speed becomes faster than 13 km/h (8 mph).

To unlock the doors:

- Press 🔓 on a door.
- Shift the transmission into P (Park).

Automatic door locking cannot be disabled. Automatic door unlocking can be programmed. See *Vehicle Personalization* ⇨ *155*.

Lockout Protection

If the vehicle is started or in ACC/ ACCESSORY and the power door lock switch is pressed with the driver door open, all the doors will lock and only the driver door will unlock.

If the vehicle is off and locking is requested while a door is open, when all doors are closed the vehicle will check for RKE transmitters inside. If an RKE transmitter is detected and the number of RKE transmitters inside has not reduced, the driver door will unlock and the horn will chirp three times.

Lockout Protection can be manually overridden with the driver door open by pressing and holding 🔒 on the power door lock switch.

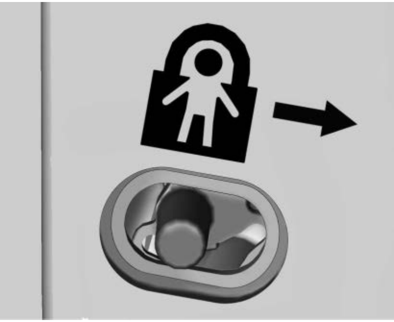
Unlocked Door Anti-Lockout

If Unlocked Door Anti-Lockout is turned on and the vehicle is off, the driver door is open, and locking is requested, all the doors will lock and the driver door will remain open. Press the button again to lock the driver door. The Unlocked Door Anti-Lockout feature can be turned on or off. See *Vehicle Personalization ⇨ 155*.

Safety Locks

The rear door safety locks prevent passengers from opening the rear doors from inside the vehicle.

Manual Safety Locks



If equipped, the safety lock is on the inside edge of the rear doors. To use the safety lock:

1. Move the lever down to the lock position.
2. Close the door.
3. Do the same for the other rear door.

To open a rear door when the safety lock is on:

1. Unlock the door by activating the inside handle, by pressing the power door lock switch, or by using the Remote Keyless Entry (RKE) transmitter.
2. Open the door from the outside.

When the safety lock is enabled, adults and older children will not be able to open the rear door from the inside. Cancel the safety locks to enable the doors to open from the inside.

To cancel the safety lock:

1. Unlock the door and open it from the outside.
2. Move the lever up to unlock. Do the same for the other door.

Doors

Liftgate

⚠ Warning

Exhaust gases can enter the vehicle if it is driven with the liftgate or trunk/hatch open, or with any objects that pass through the seal between the body and the trunk/hatch or liftgate. Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle must be driven with the liftgate or trunk/hatch open:

- Close all of the windows.
- Fully open the air outlets on or under the instrument panel.

(Continued)

Warning (Continued)

- Adjust the climate control system to a setting that brings in only outside air and set the fan speed to the highest setting. See “Climate Control Systems” in the Index.
- If the vehicle is equipped with a power liftgate, disable the power liftgate function.

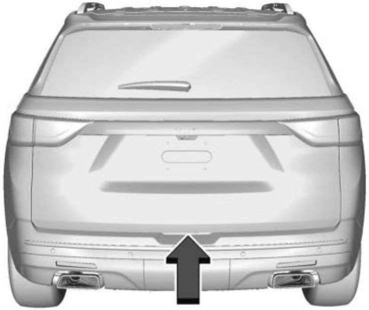
See *Engine Exhaust* ⇨ *232*.

Caution

To avoid damage to the liftgate or liftgate glass, make sure the area above and behind the liftgate is clear before opening it.

Manual Liftgate

To unlock the liftgate, press 🔓 on the power door lock switch or press 🔓 on the Remote Keyless Entry (RKE) transmitter twice within five seconds. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.



To open the liftgate, press the touch pad in the liftgate handle and lift up.

If equipped with Keyless Access, the liftgate can be opened when locked if the RKE transmitter is within 1 m (3 ft) of the touch pad. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

Use the pull cup to lower and close the liftgate. Do not press the touch pad while closing the liftgate. This will cause the liftgate to be unlatched.

The liftgate has an electric latch. If the battery is disconnected or has low voltage, the liftgate will not open. The liftgate will resume operation when the battery is reconnected and charged.

Always close the liftgate before driving.

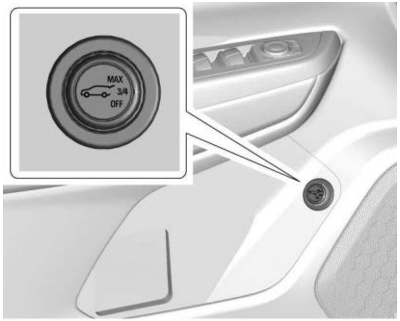
Power Liftgate Operation

⚠ Warning

You or others could be injured if caught in the path of the power liftgate. Make sure there is no one in the way of the liftgate as it is opening and closing.

Caution

Driving with an open and unsecured liftgate may result in damage to the power liftgate components.



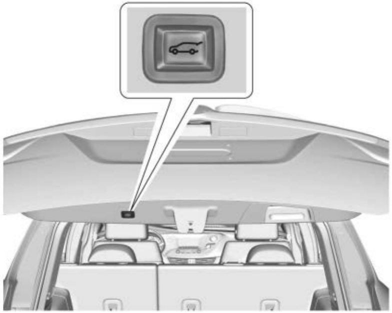
If equipped with a power liftgate, the power liftgate switch is on the driver door. The vehicle must be in P (Park).

The modes are:

- MAX: Opens to maximum height.
- 3/4: Opens to a reduced height that can be set from 3/4 to fully open. Use to prevent the liftgate from opening into overhead obstructions such as a garage door or roof-mounted cargo. The liftgate can be manually opened all the way.
- OFF: Opens manually only.

To power open or close the liftgate, select MAX or 3/4 mode.

- Press twice quickly on the RKE transmitter until the liftgate moves.
- Press on the driver door. The driver door must either be unlocked or locked without the security armed.
- Press the touch pad in the liftgate handle after unlocking all doors. A locked vehicle can be opened if the RKE transmitter is within 1 m (3 ft) of the touch pad.



- Press on the bottom of the liftgate to close.

Press any liftgate button, the touch pad, or x2 on the RKE transmitter while the liftgate is moving to stop it. Pressing any liftgate button or pressing x2 twice quickly on the RKE transmitter restarts the operation in the reverse direction. Pressing the touch pad on the liftgate handle will restart the motion, but only in the opening direction

Caution

Manually forcing the liftgate to open or close during a power cycle can damage the vehicle. Allow the power cycle to complete.

The power liftgate may be temporarily disabled under extreme low temperatures, or after repeated power cycling over a short period of time. If this occurs, the liftgate can still be operated manually.

If the vehicle is shifted out of P (Park) while the power function is in progress, the liftgate will continue to completion. If the vehicle is accelerated before the liftgate has completed moving, the liftgate may stop or reverse direction. Check for DIC messages and make sure the liftgate is closed and latched before driving.

Falling Liftgate Detection

If the power liftgate automatically closes after a power opening cycle, it indicates that the system is reacting to excess weight on the liftgate or a possible support strut failure. A repetitive chime will sound while the falling liftgate detection feature is operating. Remove any excess weight. If the liftgate continues to automatically close after opening, see your dealer for service before using the power liftgate.

Interfering with the power liftgate motion or manually closing the liftgate too quickly after power opening may resemble a support strut failure. This could also activate the falling liftgate detection feature. Allow the liftgate to complete its operation and wait a few seconds before manually closing the liftgate.

Obstacle Detection Features

If the liftgate encounters an obstacle during a power open or close cycle, the liftgate will automatically reverse direction and move a short distance away from the obstacle. After removing the obstruction, the power liftgate operation can be used again. If the liftgate encounters multiple obstacles on the same power cycle, the power function will deactivate. After removing the obstructions, manually close the liftgate which will allow normal power operation functions to resume.

If the vehicle is locked while the liftgate is closing, and an obstacle is encountered that prevents the liftgate from completely closing, the horn will sound as an alert that the liftgate did not close.

Pinch sensors are on the side edges of the liftgate. If an object is caught between the liftgate and the vehicle and presses against a sensor, the liftgate will reverse direction and open fully. The liftgate will remain open until it is activated again or closed manually.

Setting the 3/4 Mode

To change the position the liftgate stops at when opening:

1. Select MAX or 3/4 mode and power open the liftgate.
2. Stop the liftgate movement at the desired height by pressing any liftgate button. Manually adjust the liftgate position if needed.
3. Press and hold 🚙 at the bottom of the liftgate until the turn signals flash and a beep sounds. This indicates the setting has been recorded.

The liftgate cannot be set below a minimum programmable height. If there is no light flash or sound, then the height adjustment may be too low.

Manual Operation

Select OFF to manually operate the liftgate. See “Manual Liftgate” at the beginning of this section.

> **Caution**
>
> Attempting to move the liftgate too quickly and with excessive force may result in damage to the vehicle.

Operate the liftgate manually with a smooth motion and moderate speed. The system includes a feature which limits the manual closing speed to protect the components.

Hands-Free Operation

If equipped, the liftgate may be operated with a kicking motion under the left side of the rear bumper at the location of the projected logo. The RKE transmitter must be within 1 m (3 ft) of the rear bumper to operate the power liftgate hands-free.

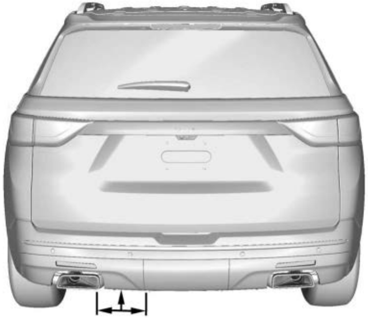
The hands-free feature will not work while the liftgate is moving. To stop the liftgate while in motion use one of the liftgate switches.

The hands-free feature can be customized. See *Vehicle Personalization* ⇨ *155*. Choose from the following:

On-Open and Close : The kicking motion is activated to both open and close the liftgate.

On-Open Only : The kicking motion is activated to only open the liftgate.

Off : The feature is disabled.



Kick Zone

To operate, move your foot in a forward kicking motion under the left side of the rear bumper at the location of the projected logo, then pull it back. The kick must come within 14 cm (6 in) of the rear bumper to activate.

Caution

Splashing water may cause the liftgate to open. Keep the RKE transmitter away from the rear bumper detection area or turn the liftgate mode to OFF when cleaning or working near the rear bumper to avoid accidental opening.

- Do not sweep your foot side to side.
- Do not keep your foot under the bumper; the liftgate will not activate.
- Do not touch the liftgate until it has stopped moving.

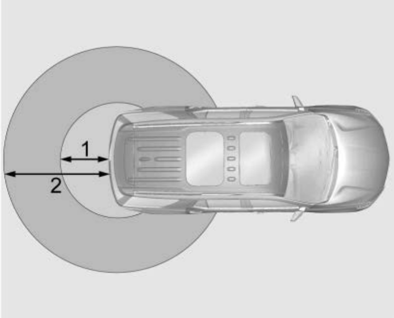
This feature may be temporarily disabled under some conditions. If the liftgate does not respond to the kick, open or close the liftgate by another method or start the vehicle. The feature will be re-enabled.

When closing the liftgate using this feature, there will be a short delay. The taillamps will flash and a chime will sound.

Step away from the liftgate before it starts moving.

Projected Logo

If equipped with this feature, a vehicle logo will be projected for one minute onto the ground near the rear bumper when an RKE transmitter is detected within approximately 2 m (6 ft). The projected logo may not be visible under brighter daytime conditions.



1. 1 m (3 ft) Hands-Free Operation Detection Zone
2. 2 m (6 ft) Projected Logo Detection Zone

The projected logo shows where the kicking motion is to take place.

The projected logo will only be available for this RKE transmitter after it has been out of range for at least 20 seconds.

If an RKE transmitter is again detected within approximately 2 m (6 ft) of the liftgate, or another hands-free operation has been detected, the one-minute timer will be reset.

The projected logo will not work under these conditions:

- The vehicle battery is low.
- The transmission is not in P (Park).
- Hands Free Liftgate Control is set to off in vehicle personalization. See *Vehicle Personalization ⇨ 155*.
- Power liftgate is turned off.
- The vehicle remains parked for 72 hours or more, with no RKE transmitter use or Keyless Access operation. To re-enable, press any button on the RKE transmitter or open and close a vehicle door.

The projected logo will not work for a single RKE transmitter when a transmitter:

- Has been left within approximately 5 m (15 ft) of the liftgate for several minutes.
- Has been left inside the vehicle and all vehicle doors are closed.
- Has approached the area outside of the liftgate five times within 10 minutes.

Hands-Free Liftgate and Projected Logo Availability

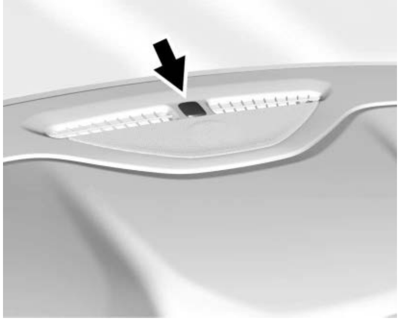
Action	Hands-Free Liftgate	Projected Logo
RKE transmitter entering projected logo detection zone	Operative	On for one minute
RKE transmitter left inside projected logo detection zone for minimum of 10 minutes	Operative	Off until RKE transmitter button press or a door is opened and closed
RKE transmitter brought in and out of projected logo detection zone five times or more within 10 minutes	Operative	Off for one hour or until RKE transmitter button press or a door is opened and closed
Vehicle remains parked for more than 72 hours	Operative	Off until RKE transmitter button press or a door is opened and closed
Vehicle battery is low	Non-operative	Off
Transmission is not in P (Park)	Non-operative	Off
Power liftgate is turned off	Non-operative	Off
Hands-free liftgate is disabled in vehicle personalization	Non-operative	Off

Vehicle Security

This vehicle has theft-deterrent features; however, they do not make the vehicle impossible to steal.

Vehicle Alarm System

This vehicle has an anti-theft alarm system.



The indicator light, on the instrument panel near the windshield, indicates the status of the system.

Off : Alarm system is disarmed.

On Solid : Vehicle is secured during the delay to arm the system.

Fast Flash : Vehicle is unsecured. A door, the hood, or the liftgate is open.

Slow Flash : Alarm system is armed.

Arming the Alarm System

1. Close the liftgate and the hood. Turn off the vehicle.
2. Lock the vehicle in one of three ways:
   - Use the RKE transmitter.
   - Use the Keyless Access system.
   - With a door open, press the inside 🔒.
3. After 30 seconds the alarm system will arm, and the indicator light will begin to slowly flash indicating the alarm system is operating. Pressing 🔒 on the RKE transmitter a second time will bypass the 30-second delay and immediately arm the alarm system.

The vehicle alarm system will not arm if the doors are locked with the key.

If the driver door is opened without first unlocking with the RKE transmitter, the horn will chirp and the lights will flash to indicate pre-alarm. If the vehicle is not started, or the door is not unlocked by pressing 🔓 on the RKE transmitter during the 10-second pre-alarm, the alarm will be activated.

The alarm will also be activated if a passenger door, the liftgate, or the hood is opened without first disarming the system. When the alarm is activated, the turn signals flash and the horn sounds for about 30 seconds. The alarm system will then re-arm to monitor for the next unauthorized event.

Disarming the Alarm System

To disarm the alarm system or turn off the alarm if it has been activated:

- Press 🔒 on the RKE transmitter.
- Unlock the vehicle using the Keyless Access system.
- Start the vehicle.

To avoid setting off the alarm by accident:

- Lock the vehicle after all occupants have left the vehicle and all doors are closed.
- Always unlock a door with the RKE transmitter or use the Keyless Access system.

Unlocking the driver door with the key will not disarm the system or turn off the alarm.

How to Detect a Tamper Condition

If 🔒 is pressed and the horn chirps and the lights flash three times, the alarm was activated while the alarm system was armed.

If the alarm system has been activated, a message will appear on the Driver Information Center (DIC).

Immobilizer

See *Radio Frequency Statement* ⇨ *397*.

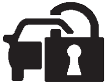
Immobilizer Operation

This vehicle has a passive theft-deterrent system.

The system does not have to be manually armed or disarmed.

The vehicle is automatically immobilized when the transmitter leaves the vehicle.

The immobilization system is disarmed when the ignition is turned on or in ACC/ACCESSORY and a valid Remote Keyless Entry (RKE) transmitter is in the vehicle.



The security light, in the instrument cluster, comes on if there is a problem with arming or disarming the theft-deterrent system.

The system has one or more RKE transmitters matched to an immobilizer control unit in your vehicle. Only a correctly matched RKE transmitter will start the vehicle. If the transmitter is ever damaged, you may not be able to start your vehicle.

When trying to start the vehicle, the security light may come on briefly when the ignition is turned on.

If the engine does not start and the security light stays on, there is a problem with the system. Turn the ignition off and try again.

If the ignition will not change from on to off or ACC/ACCESSORY, and the RKE transmitter appears to be undamaged, try another transmitter. Or, you may try placing the transmitter in the cupholder in the center console.

If the ignition mode will not change with the other transmitter, or with the transmitter in the cupholder, your vehicle needs service. If the ignition does change modes, the first transmitter may be faulty. See your dealer who can service the theft-deterrent system and have a new RKE transmitter programmed to the vehicle.

It is possible for the immobilizer system to learn new or replacement RKE transmitters. Up to eight transmitters can be programmed to the vehicle. To program additional transmitters, see “Programming Transmitters to the Vehicle” under *Remote Keyless Entry (RKE) System Operation ⇨ 30*.

Do not leave the key or device that disarms or deactivates the theft-deterrent system in the vehicle.

Exterior Mirrors

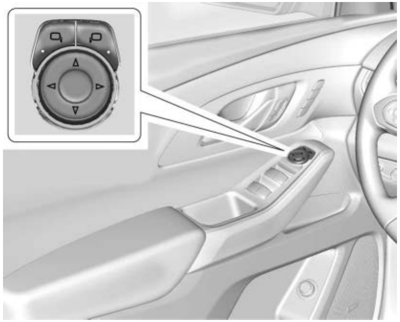
Convex Mirrors

⚠ Warning

A convex mirror can make things, like other vehicles, look farther away than they really are. If you cut too sharply into the right lane, you could hit a vehicle on the right. Check the inside mirror or glance over your shoulder before changing lanes.

The passenger side mirror is convex shaped. A convex mirror's surface is curved so more can be seen from the driver seat.

Power Mirrors



To adjust the mirrors:

1. Press □ or □ to choose the driver or passenger mirror.
2. Press the arrows on the control pad to move each mirror in the desired direction.

Folding Mirrors

Manual Folding Mirrors

The mirrors can be folded inward toward the vehicle to prevent damage when going through an automatic car wash. Push the mirror outward to return it to the original position.

Memory Mirrors

The vehicle may have memory mirrors. See *Memory Seats* ⇨ *66*.

Lane Change Alert (LCA)

The vehicle may have LCA. See *Lane Change Alert (LCA)* ⇨ *267*.

Side Blind Zone Alert

The vehicle may have Side Blind Zone Alert. See *Side Blind Zone Alert (SBZA)* ⇨ *267*.

Heated Mirrors

If equipped, the heated outside mirrors turn on when the rear window defogger is on and help to clear fog or frost from the surface of the mirrors.

REAR **:** This button is on the climate control panel.

See "Rear Window Defogger" under *Dual Automatic Climate Control System* ⇨ *201*.

Automatic Dimming Mirror

The vehicle has an automatic dimming outside mirror on the driver side. The mirror will adjust for the glare of headlamps behind you.

Reverse Tilt Mirrors

If equipped with memory seats, the passenger and/or driver mirror tilts to a preselected position when the vehicle is in R (Reverse). This allows the curb to be seen when parallel parking.

The mirror(s) return to the original position when:

- The vehicle is shifted out of R (Reverse), or remains in R (Reverse) for about 30 seconds.
- The ignition is turned off.
- The vehicle is driven in R (Reverse) above a set speed.

To turn this feature on or off, see *Vehicle Personalization* ⇨ *155*.

Interior Mirrors

Interior Rearview Mirrors

Adjust the rearview mirror for a clear view of the area behind your vehicle.

Do not spray glass cleaner directly on the mirror. Use a soft towel dampened with water.

Manual Rearview Mirror

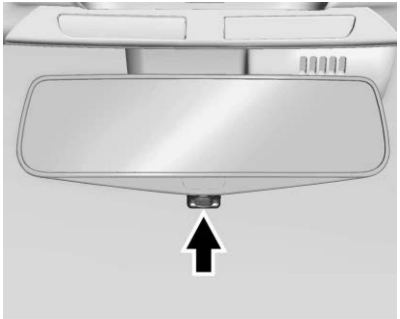
If equipped, push the tab forward for daytime use and pull it rearward for nighttime use to avoid glare of the headlamps from behind.

Automatic Dimming Rearview Mirror

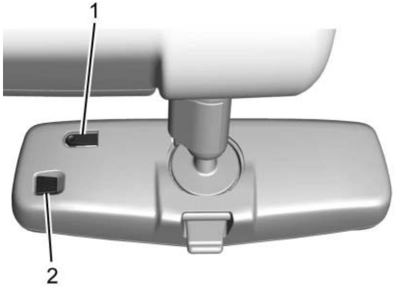
If equipped, automatic dimming reduces the glare of headlamps from behind. The dimming feature comes on when the vehicle is started.

Rear Camera Mirror

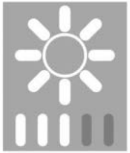
If equipped, this automatic dimming mirror provides a wide angle camera view of the area behind the vehicle.



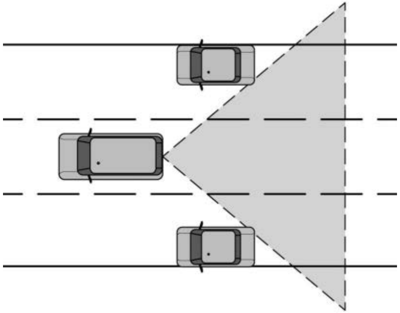
Pull the tab rearward to turn on the display. Push the tab forward to turn it off. When off, the mirror is automatic dimming. Adjust the mirror for a clear view of the area behind the vehicle while the display is off.



To adjust the brightness, press the button (1) on the back of the rearview mirror without covering the light sensor (2).

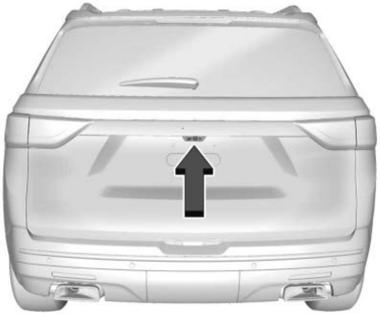


Each button press cycles the brightness between five settings.



⚠ Warning

The Rear Camera Mirror (RCM) has a limited view. Portions of the road, vehicles, and other objects may not be seen. Do not drive or park the vehicle using only this camera. Objects may appear closer than they are. Check the outside mirrors or glance over your shoulder when making lane changes or merging. Failure to use proper care may result in injury, death, or vehicle damage.



The camera that provides the Rear Camera Mirror (RCM) image is above the license plate, next to the Rear Vision Camera (RVC).

Troubleshooting

If the tab is in the rearward position and a blue screen and 📷 are displayed in the mirror and the display shuts off, see your dealer for service.

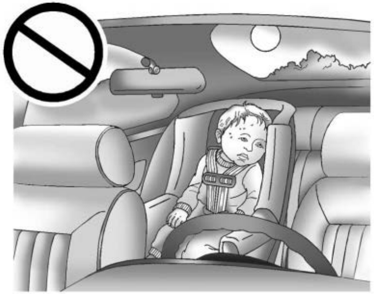
The RCM may not work properly or display a clear image if:

- There is glare from the sun or headlamps. This may obstruct objects from view.
- Dirt, snow, or other debris blocks the camera lens. Clean the lens with a soft damp cloth.
- The back of the vehicle has been damaged and the position and mounting angle of the camera has changed.

Windows

⚠ Warning

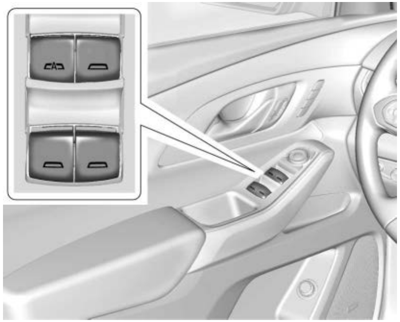
Never leave a child, a helpless adult, or a pet alone in a vehicle, especially with the windows closed in warm or hot weather. They can be overcome by the extreme heat and suffer permanent injuries or even death from heat stroke.



The vehicle aerodynamics are designed to improve fuel economy performance. This may result in a pulsing sound when either rear window is down and the front windows are up. To reduce the sound, open either a front window or the sunroof, if equipped.

Power Windows

> ⚠ **Warning**
>
> Leaving children in a vehicle with a Remote Keyless Entry (RKE) transmitter is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the RKE transmitter in the vehicle, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with an RKE transmitter.

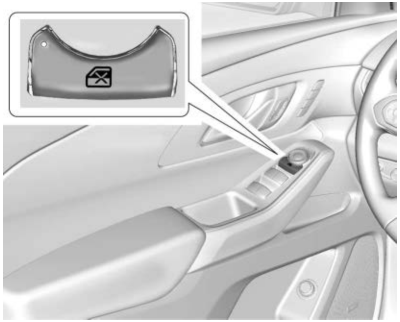


The power windows work when the ignition is on, in ACC/ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP)* ⇨ *230*.

Using the window switch, press to open or pull to close the window.

The windows may be temporarily disabled if they are used repeatedly within a short time.

Window Lockout



This feature stops the rear passenger window switches from working:

- Press ⊠ to engage the rear window lockout feature. The indicator light is on when engaged.
- Press ⊠ again to disengage.

Window Express Movement

All windows can be opened without holding the window switch. Press the switch down fully and quickly release to express open the window.

If equipped, pull the window switch up fully and quickly release to express close the window.

Briefly press or pull the window switch in the same direction to stop that window's express movement.

Window Automatic Reversal System

The express-close feature will reverse window movement if it comes in contact with an object. Extreme cold or ice could cause the window to auto-reverse. The window will operate normally after the object or condition is removed.

Automatic Reversal System Override

> **⚠ Warning**
>
> If automatic reversal system override is active, the window will not reverse automatically. You or others could be injured and the window could be damaged. Before using automatic reversal system override, make sure that all people and obstructions are clear of the window path.

When the engine is on, override the automatic reversal system by pulling and holding the window switch if conditions prevent it from closing.

Programming the Power Windows

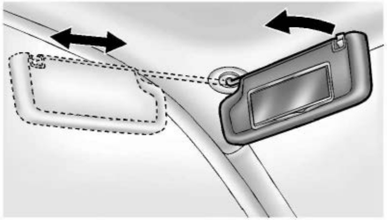
Programming may be necessary if the vehicle battery has been disconnected or discharged. If the window is unable to express-up, program each express-close window:

1. Close all doors.
2. Turn the ignition on or to ACC/ ACCESSORY.
3. Partially open the window to be programmed. Then close it and continue to pull the switch briefly after the window has fully closed.
4. Open the window and continue to press the switch briefly after the window has fully opened.

Remote Window Operation

If equipped, this feature allows all the windows to be opened remotely. If enabled in vehicle personalization, press and hold 🔓 on the RKE transmitter. See *Vehicle Personalization ⇨ 155*.

Sun Visors

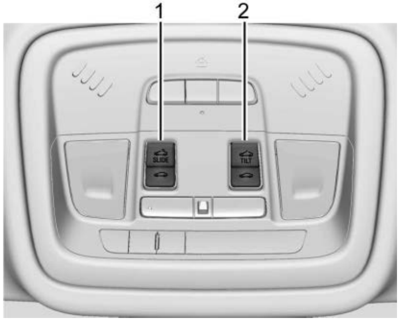


Pull the sun visor down to block glare. Detach the sun visor from the center mount to pivot to the side window and, if equipped, extend along the rod.

Roof

Sunroof

If equipped, the ignition must be on or in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active to operate the sunroof. See *Ignition Positions* ⇨ *225* and *Retained Accessory Power (RAP)* ⇨ *230*.



1. Sunroof Switch (SLIDE)
2. Vent Switch (TILT)

Slide Switch

Express-Open/Express-Close : Press and release SLIDE (1) to express-open the sunroof. The sunshade will not open automatically. Press and release 🚗 (1) to express-close the sunroof.

Open/Close (Manual Mode) : Fully press SLIDE (1) to open the sunroof. The sunshade will not automatically open with the sunroof. Release to stop at the desired position. Fully press 🚗 (1) to close the sunroof. Release to stop at the desired position.

Tilt Switch

Vent Feature : Press TILT (2) to vent the sunroof. Press again and hold to open the sunroof. Release to stop at the desired position. The sunshade will not open automatically. Press 🚗 (2) to express-close the sunroof. Press again to stop the movement.

The front sunshade can only be opened and closed manually. The sunshade can be opened by pushing up on the handle, and closed by pulling forward on the handle until it latches.

If equipped, the rear sunshade can only be opened or closed manually. To open, press the latch button (if equipped) on the handle while pushing up to unlatch it. The sunshade will retract to the open position. To close the sunshade, pull the handle forward until it latches. Do not try to close the sunshade while the sunroof is fully opened or in the vent position.

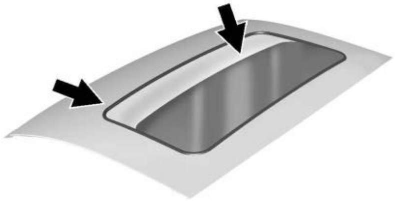
The sunroof cannot be opened or closed if the vehicle has an electrical failure.

Automatic Reversal System

The sunroof has an automatic reversal system that is only active when the sunroof is operated in express-close mode.

If an object is in the path while express closing, the reversal system will detect an object, stop, and open the sunroof again.

If frost or other conditions prevent closing, override the feature by closing the sunroof in manual mode. To stop movement, release the switch.



Dirt and debris may collect on the sunroof seal or in the track. This could cause an issue with sunroof operation or noise. It could also plug the water drainage system. Periodically open the sunroof and remove any obstacles or loose debris. Wipe the sunroof seal and roof sealing area using a clean cloth, mild soap, and water. Do not remove grease from the sunroof.

If water is seen dripping into the water drainage system, this is normal.

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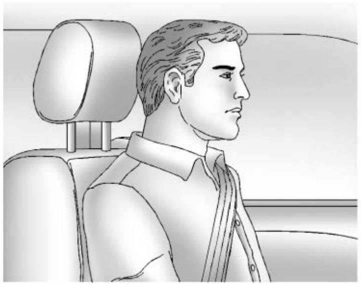
Head Restraints

Front Seats

⚠ Warning

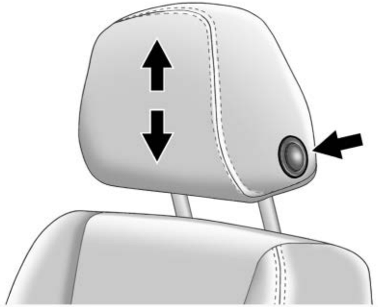
With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/ spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

The vehicle's front seats have adjustable head restraints in the outboard seating positions.



Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chance of a neck injury in a crash.

The height of the head restraint can be adjusted.



To raise or lower the head restraint, press the button located on the side of the head restraint, and pull up or push the head restraint down, and release the button. Pull and push on the head restraint after the button is released to make sure that it is locked in place.

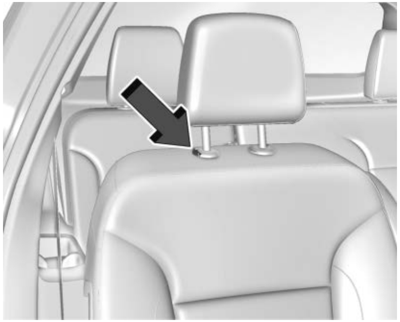
The front seat outboard head restraints are not removable.

Rear Seats

Second Row Seats

The vehicle’s second row seats have adjustable head restraints in the outboard seating positions.

The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.



To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.

If you are installing a child restraint in the rear seat, see “Securing a Child Restraint Designed for the LATCH System” under *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105*.

Third Row Seats

The vehicle’s third row seats have head restraints in the outboard seating positions that cannot be adjusted up or down.

The third row outboard head restraints are not removable.

The third row outboard head restraints are designed to be folded.

The head restraint can be folded to allow for better visibility when the rear seat is unoccupied.

When folding the seatback down, the head restraint will automatically fold out of the way as the seat is folded down.

Return the lowered head restraint to the upright position until it locks into place. Push and pull on the head restraint to make sure it is locked.

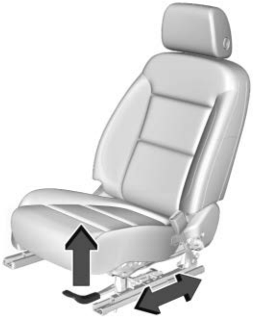
When an occupant is in the seat, always return the head restraint to the upright position. Pull the head restraint up and push it rearward until it locks into place. Push and pull on the head restraint to make sure that it is locked.

Front Seats

Seat Adjustment

⚠ Warning

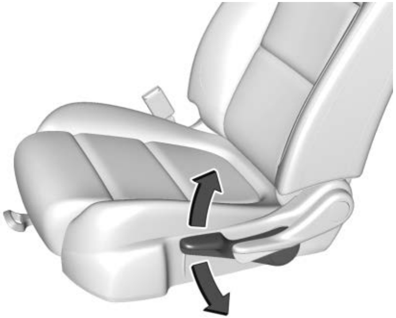
You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.



To adjust a manual seat:

1. Lift the handle under the seat to unlock it.
2. Move the seat forward or rearward to adjust the seat position.
3. Release the handle to stop the seat from moving.
4. Try to move the seat back and forth to be sure it is locked in place.

Seat Height Adjuster



If equipped, move the lever up or down to manually raise or lower the seat.

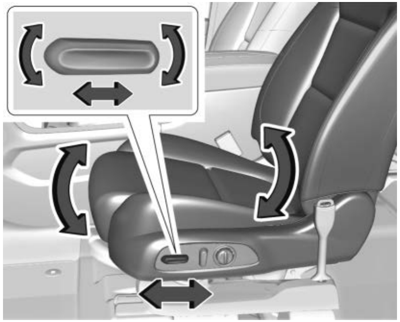
Power Seat Adjustment

⚠ Warning

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.

⚠ Warning

The power seats will work with the ignition off. Children could operate the power seats and be injured. Never leave children alone in the vehicle.



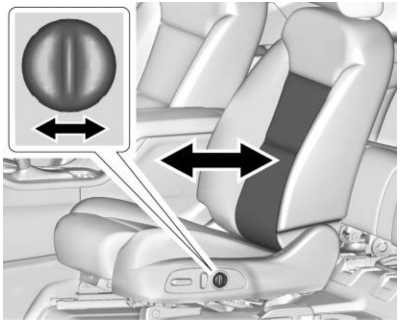
To adjust the seat:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the entire seat by moving the rear of the control up or down.

To adjust the seatback, see *Reclining Seatbacks* ⇨ *64*.

To adjust the lumbar support, see *Lumbar Adjustment* ⇨ *64*.

Lumbar Adjustment



Press and hold the control forward to increase or rearward to decrease support.

Reclining Seatbacks

⚠ Warning

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the seat belts cannot do their job.

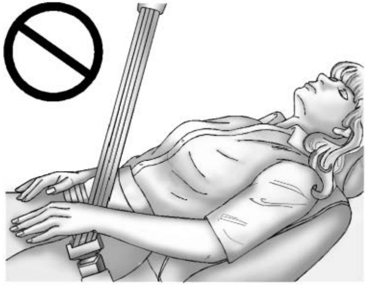
(Continued)

Warning (Continued)

The shoulder belt will not be against your body. Instead, it will be in front of you. In a crash, you could go into it, receiving neck or other injuries.

The lap belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

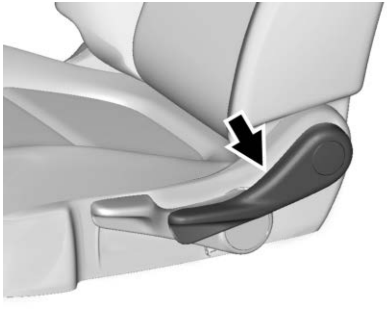
For proper protection when the vehicle is in motion, have the seatback upright. Then sit well back in the seat and wear the seat belt properly.



Do not have a seatback reclined if the vehicle is moving.

Manual Reclining Seatbacks

> **⚠ Warning**
>
> If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.



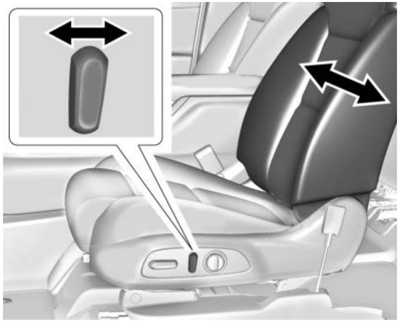
To recline the seatback:

1. Lift the lever.
2. Move the seatback to the desired position, and then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

To return the seatback to the upright position:

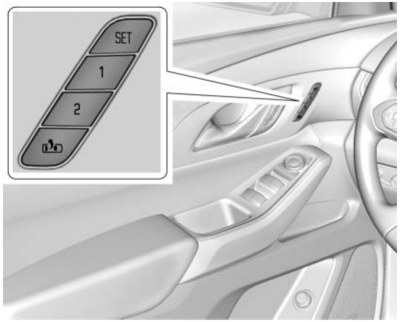
1. Lift the lever fully without applying pressure to the seatback, and the seatback will return to the upright position.
2. Push and pull on the seatback to make sure it is locked.

Power Reclining Seatbacks



- Tilt the top of the control rearward to recline.
- Tilt the top of the control forward to raise.

Memory Seats



If equipped, memory seats allow two drivers to save and recall their unique seat positions for driving the vehicle, and a shared exit position for getting out of the vehicle. Other feature positions may also be saved, such as power mirrors and power steering wheel, if equipped. Memory positions are linked to RKE transmitter 1 or 2 for automatic memory recalls.

Before saving, adjust all available memory feature positions. Turn the ignition on and then press and release SET; a beep will sound. Then immediately press and hold 1, 2, or 💺 (Exit) until two beeps sound. To manually recall these positions, press and hold 1, 2, or 💺 until the saved position is reached. Follow the instructions under “Saving Memory Positions.”

The vehicle identifies the current driver’s RKE transmitter number (1–8). See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*. Only RKE transmitters 1 and 2 can be used for automatic memory recalls. A Driver Information Center (DIC) welcome message indicating the transmitter number may display for the first few ignition cycles following a transmitter change. For Auto Memory Recall to work properly, save the positions to the memory button (1 or 2) matching the RKE transmitter number displayed in the DIC welcome message. Carry the linked RKE transmitter when entering the vehicle.

Memory adjustments may not be available upon delivery or after service until steps in “Saving Memory Positions” section are performed.

Vehicle Personalization Settings

- To have the Auto Memory Recall movement begin when the vehicle is started, select the Settings menu, then Vehicle, then Comfort and Convenience, and then Auto Memory Recall. Select On or Off. See “Auto Memory Recall” later in this section.
- To begin Easy Exit Recall movement when the ignition is turned off and the driver door is opened, or when the ignition is turned off with the driver door already opened, select the Settings menu, then Vehicle, then Comfort and Convenience, and then Easy Exit Options. Select On or Off. See “Easy Exit Recall” later in this section.

- See *Vehicle Personalization* ⇨ *155* for additional setting information.

Identifying Driver Number

To identify the driver number:

1. Start the vehicle with a different key or RKE transmitter. The DIC should display the driver number; 1 or 2. Turn the ignition off and remove the key or RKE transmitter from the vehicle.
2. Start the vehicle with the initial key or RKE transmitter. The DIC should display the other driver number not shown in Step 1.

Saving Memory Positions

Read these instructions completely before saving memory positions.

To save preferred driving positions 1 and 2:

1. Turn the ignition on or to ACC/ ACCESSORY.

   A DIC welcome message may indicate driver number 1 or 2.
2. Adjust all available memory features to the desired driving position.
3. Press and release SET; a beep will sound.
4. Immediately press and hold the 1 or 2 memory button matching the above DIC welcome message until two beeps sound.

   If too much time passes between releasing SET and pressing 1, the memory position will not be saved and two beeps will not sound. Repeat Steps 3 and 4.

   1 or 2 corresponds to the driver number. See “Identifying Driver Number” previously in this section.
5. Repeat Steps 1–4 for a second driver using 1 or 2.

To save the position for 💺 and easy exit features, repeat Steps 1–4 using 💺. This saves the position for getting out of the vehicle.

Save preferred memory feature positions to both 1 and 2 if you are the only driver.

Manually Recalling Memory Positions

Press and hold 1, 2, or 💺 to recall the previously saved memory positions.

To stop Manual Memory Recall movement, release 1, 2, or 💺 or press any of the following controls:

- Power seat
- Memory SET
- Power mirror, with the driver or passenger side mirror selected
- Power steering wheel, if equipped

Auto Memory Recall

The vehicle identifies the number of the current driver’s RKE transmitter (1–8). See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*. If the RKE transmitter is 1 or 2, and Auto Memory Recall is programmed on in vehicle personalization, the positions saved to the same memory button number 1 or 2 are automatically recalled when the ignition is turned on, or turned from off to ACC/ACCESSORY. RKE transmitters 3–8 will not provide automatic memory recalls.

To turn Auto Memory Recall on or off, see "Vehicle Personalization Settings" previously in this section and *Vehicle Personalization* ⇨ *155*.

The shift lever must be in P (Park) to start Auto Memory Recall. Auto Memory Recall will complete if the vehicle is shifted out of P (Park) prior to reaching the saved memory position.

To stop Auto Memory Recall movement, turn the ignition off or press any of the following controls:

- Power seat
- Memory SET, 1, 2, or 💺
- Power mirror, with the driver or passenger side mirror selected
- Power steering wheel, if equipped

If the saved memory seat position does not automatically recall or recalls to the wrong positions, the driver's RKE transmitter number (1 or 2) may not match the memory button number that positions were saved to. Try saving the position to the other memory button or try the other RKE transmitter.

Easy Exit Recall

Easy Exit Recall is not linked to an RKE transmitter. The position saved to 💺 is used for all drivers. To turn Easy Exit Recall on or off, see "Vehicle Personalization Settings" previously in this section and *Vehicle Personalization* ⇨ *155*.

If turned on, the position saved to 💺 is automatically recalled when one of the following occurs:

- The vehicle is turned off and the driver door is opened within a short time.
- The vehicle is turned off with the driver door open.

To stop Easy Exit Recall movement, press any of the following memory controls:

- Power seat
- Memory SET, 1, 2, or 💺
- Power mirror, with the driver or passenger side mirror selected
- Power steering wheel, if equipped

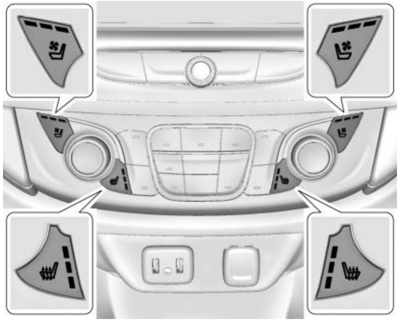
Obstructions

If something has blocked the driver seat and/or power steering wheel while recalling a memory position, the recall may stop. Remove the obstruction and try the recall again. If the memory position still does not recall, see your dealer for service.

Heated and Ventilated Front Seats

⚠ Warning

If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. To reduce the risk of burns, use care when using the seat heater, especially for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket, cushion, cover, or similar item. This may cause the seat heater to overheat. An overheated seat heater may cause a burn or may damage the seat.



Heated and Ventilated Seat Buttons Shown, Heated Seat Buttons Similar

If equipped, the buttons are near the climate controls on the center stack. To operate, the engine must be running.

Press or to heat the driver or passenger seat.

Press or , if available, to ventilate the driver or passenger seat. A ventilated seat has a fan that pulls or pushes air through the seat. The air is not cooled.

When this feature is off, the heated and ventilated seat symbols on the buttons are white. When a heated seat is turned on, the symbol turns red. When a ventilated seat is turned on, the symbol turns blue.

Press the button once for the highest setting. With each press of the button, the seat will change to the next lower setting, and then to the off setting. The indicator lights next to the buttons indicate three for the highest setting and one for the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

The passenger seat may take longer to heat up.

Auto Heated and Ventilated Seats

When the vehicle is on, this feature will automatically activate the heated or ventilated seats at the level required by the vehicle's interior temperature.

The active high, medium, low, or off heated or ventilated seat level will be indicated by the manual heated or ventilated seat buttons on the center stack. Use the manual heated or ventilated seat buttons on the center stack to turn auto heated or ventilated seats off. If the passenger seat is unoccupied, the auto heated or ventilated seats feature will not activate that seat. The auto heated or ventilated seats feature can be programmed to always be enabled when the vehicle is on.

See *Vehicle Personalization* ⇨ *155*.

Remote Start Heated and Ventilated Seats

During a remote start, the heated or ventilated seats, if equipped, can be turned on automatically. When it is cold outside, the heated seats will turn on followed by the heated steering wheel, if equipped. When it is hot outside, the ventilated seats turn on. The heated or ventilated seats are canceled when the ignition is turned on. Press the heated or ventilated seat button to use the heated or ventilated seats after the vehicle is started.

The heated or ventilated seat indicator lights may not turn on during a remote start.

The temperature performance of an unoccupied seat may be reduced. This is normal.

The remote start heated or ventilated seats may be enabled or disabled in the vehicle personalization menu. See *Remote Vehicle Start* ⇨ *37* and *Vehicle Personalization* ⇨ *155*.

Rear Seats

Rear Seat Reminder

If equipped, the message REAR SEAT REMINDER LOOK IN REAR SEAT displays under certain conditions indicating there may be an item or passenger in the rear seat. Check before exiting the vehicle.

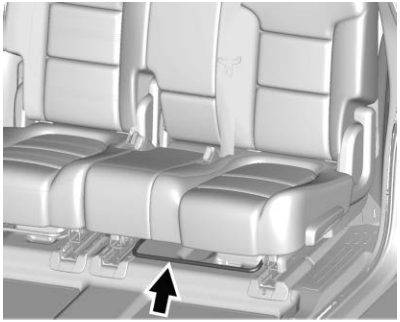
This feature will activate when a second row door is opened while the vehicle is on or up to 10 minutes before the vehicle is turned on. There will be an alert when the vehicle is turned off. The alert does not directly detect objects in the rear seat; instead, under certain conditions, it detects when a rear door is opened and closed, indicating that there may be something in the rear seat.

The feature is active only once each time the vehicle is turned on and off, and will require reactivation by opening and closing the second row doors. There may be an alert even when there is nothing in the rear seat; for example, if a child entered the vehicle through the rear door and left the vehicle without the vehicle being shut off.

The feature can be turned on or off. See *Vehicle Personalization* ⇨ *155*.

Rear Seat Adjustment

The second row seats slide forward for more room.



To adjust the seat position:

1. Remove objects on the floor in front of or on the second row seat, or in the seat tracks on the floor.
2. Lift the lever below the seat cushion and slide the seat forward or backward.

Entering and Exiting the Third Row

⚠ Warning

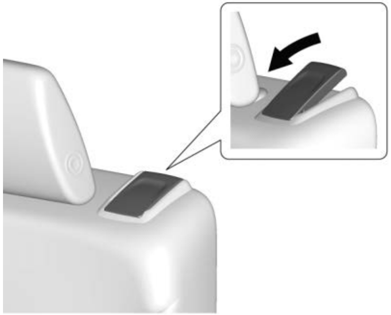
Using the third row seating position while the second row is folded could cause injury in a sudden stop or crash. Be sure to return the seat to the passenger seating position. Push and pull on the seat to make sure it is locked into place.

⚠ Warning

If the seatback and seat base are not locked, the seat could move forward in a sudden stop or crash and injure the occupant. Always push and pull on the seatbacks to be sure the seatback and seat base are locked.

Caution

Folding a rear seat with the seat belts still fastened may cause damage to the seat or the seat belts. Always unbuckle the seat belts and return them to their normal stowed position before folding a rear seat.



To access the third row from the driver side (bench seat only):

1. Remove objects on the floor in front of or on the second row seat, or in the seat tracks on the floor.
2. Make sure that the seat belt is unfastened and in the stowed position.
3. Pull the handle on top of the seat forward and pull the seat forward.

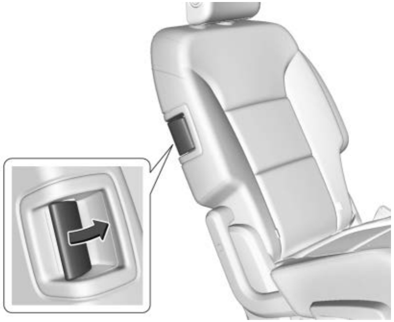
To access the third row from the passenger side:

The second row passenger side seat can be easily moved for third row entry or exit with a forward-facing child restraint installed using the LATCH system. Remove a rear-facing child restraint before moving the seat for third row entry or exit.

⚠ Warning

Remove the child from the child restraint before moving the seat forward for third row entry or exit. Failure to do so may result in injury to the child.

1. Remove objects on the floor in front of the second row seat, or in the seat tracks on the floor.



2. Pull the handle on the top or side of the seat forward and pull the seat forward.

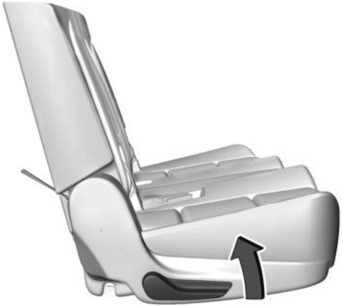
Returning the Seat to the Seating Position

To return the second row seat to its normal seating position:

1. Remove objects on the floor behind the second row seat or in the seat tracks on the floor.
2. Push on the seatback until the seat is locked into place.
3. Push and pull on the seatback and seat cushion to make sure they are locked in place.
4. Check that the seat belt is not under the seat cushion.

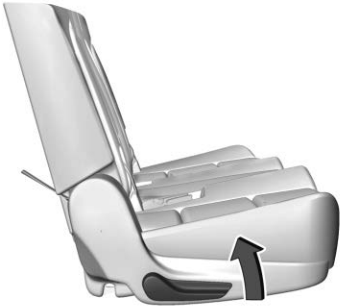
Reclining the Seatbacks

To recline the seatbacks:



1. Leaning rearward in the seat, pull the reclining seatback lever.
2. Move the seatback to the desired position, and then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

Folding the Seatbacks



To fold the second row seatbacks:

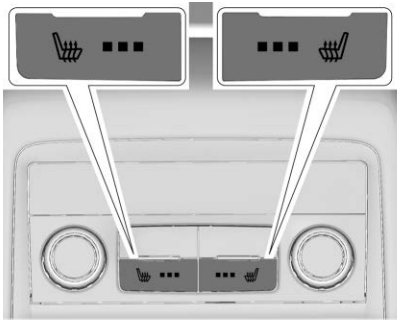
1. Remove anything on or under the seat.
2. Fold the head restraint rearward. See *Head Restraints* ⇨ *61*.
3. Pull up on the reclining seatback lever.

To return the seatback to the seating position, lift the seatback and push it rearward until it locks into place. Push and pull on the seatback to make sure it is locked. Push on the head restraint to return it to the upright, locked position.

Heated Rear Seats

⚠ Warning

If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. See the Warning under *Heated and Ventilated Front Seats* ⇨ *69*.



If equipped, the buttons are on the rear of the center console.

With the engine running, press or to heat the left or right outboard seat cushion. An indicator on the climate control display appears when this feature is on.

This feature turns on at the highest setting. With each press of the button, the heated seat changes to the next lower setting, and then the off setting. Three lights indicate the highest setting, and one light indicates the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

Third Row Seats

⚠ Warning

Using the third row seating position while the second row is folded, or pushed forward in the entry position, could cause injury in a sudden stop or crash. Be sure to return the seat to the passenger seating position. Push and pull on the seat to make sure it is locked into place.

(Continued)

Warning (Continued)

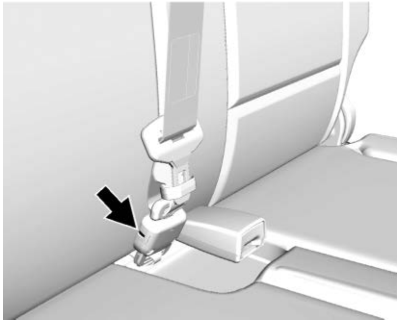
Folding the Seatback

Caution

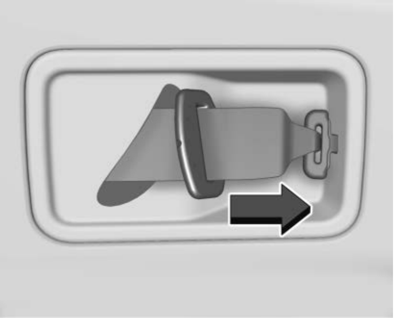
Folding a rear seat with the seat belts still fastened may cause damage to the seat or the seat belts. Always unbuckle the seat belts and return them to their normal stowed position before folding a rear seat.

To fold the third row seatback:

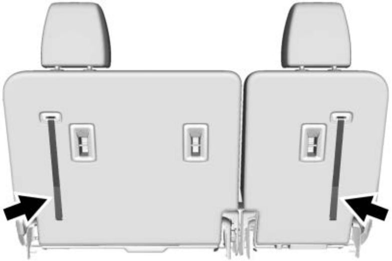
1. Remove objects on the floor in front of or on the second row seat, or in the seat tracks on the floor.
2. If the second row seat is in the full rear position, adjust it forward to allow the third row seat to fold fully flat.
3. Remove anything on or under the seat.



4. Disconnect the center seat belt mini-latch, using a key in the slot on the mini-buckle, and let the belt retract into the headliner.



5. Stow the mini-latch in the holder in the headliner.



6. Pull the release strap located on the seatback.
7. Push the seatback forward to lay flat.
8. Repeat for the other seatback, if necessary.

Returning the Seat to the Seating Position

To return the seatback to the seating position:

1. From the rear of the vehicle, raise the seatback to the upright position using the pull strap on the back of the third row seat, or lift the seatback and push it into place from inside the vehicle.

⚠ Warning

If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.

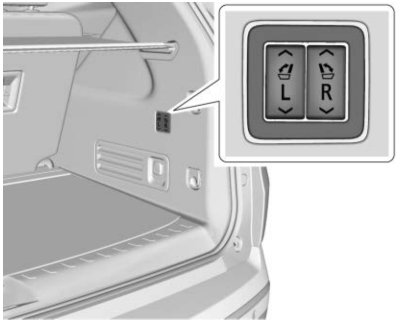
2. Push and pull on the seatback to make sure it is locked in place.

⚠ Warning

A seat belt that is improperly routed, not properly attached, or twisted will not provide the protection needed in a crash. The person wearing the belt could be seriously injured. After raising the rear seatback, always check to be sure that the seat belts are properly routed and attached, and are not twisted.

3. Reconnect the center seat belt mini-latch to the mini-buckle. Do not let it twist.
4. Pull on the seat belt to be sure the mini-latch is secure.

Power Seatback Folding



If equipped, the third row seatbacks can also be folded forward and returned to the upright position by pressing and holding the switches on the passenger side of the rear cargo area.

Seat Belts

This section describes how to use seat belts properly, and some things not to do.

⚠ Warning

Do not let anyone ride where a seat belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing seat belts, injuries can be much worse than if you are wearing seat belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from the vehicle. In addition, anyone who is not buckled up can strike other passengers in the vehicle.

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, passengers riding in these areas are more likely to be seriously injured or killed. Do not allow passengers to ride in any area of the vehicle that is not equipped with seats and seat belts.

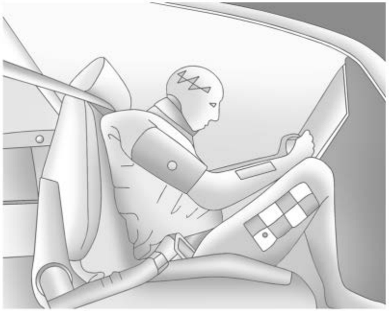
(Continued)

Warning (Continued)

Always wear a seat belt, and check that all passenger(s) are restrained properly too.

This vehicle has indicators as a reminder to buckle the seat belts. See *Seat Belt Reminders* ⇨ *140*.

Why Seat Belts Work



When riding in a vehicle, you travel as fast as the vehicle does. If the vehicle stops suddenly, you keep going until something stops you. It could be the windshield, the instrument panel, or the seat belts!

When you wear a seat belt, you and the vehicle slow down together. There is more time to stop because you stop over a longer distance and, when worn properly, your strongest bones take the forces from the seat belts. That is why wearing seat belts makes such good sense.

Questions and Answers About Seat Belts

Q: Will I be trapped in the vehicle after a crash if I am wearing a seat belt?

A: You *could* be — whether you are wearing a seat belt or not. Your chance of being conscious during and after a crash, so you *can* unbuckle and get out, is *much* greater if you are belted.

Q: If my vehicle has airbags, why should I have to wear seat belts?

A: Airbags are supplemental systems only. They work *with* seat belts — not instead of them. Whether or not an airbag is provided, all occupants still have to buckle up to get the most protection.

Also, in nearly all states and in all Canadian provinces, the law requires wearing seat belts.

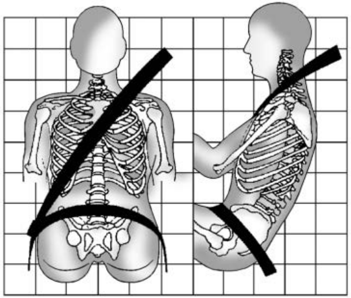
How to Wear Seat Belts Properly

Follow these rules for everyone's protection.

There are additional things to know about seat belts and children, including smaller children and infants. If a child will be riding in the vehicle, see *Older Children* ⇨ *98* or *Infants and Young Children* ⇨ *99*. Review and follow the rules for children in addition to the following rules.

It is very important for all occupants to buckle up. Statistics show that unbelted people are hurt more often in crashes than those who are wearing seat belts.

There are important things to know about wearing a seat belt properly.



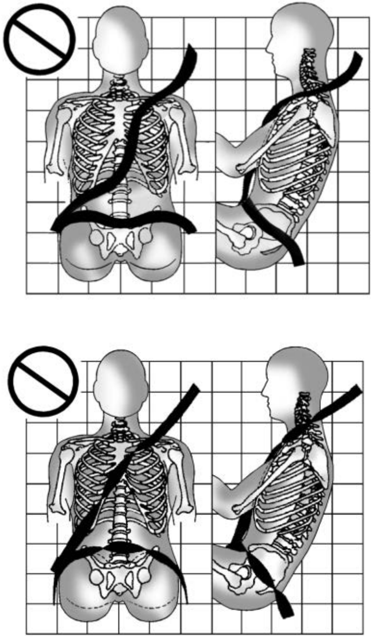
- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Always use the correct buckle for your seating position.
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash,

this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.

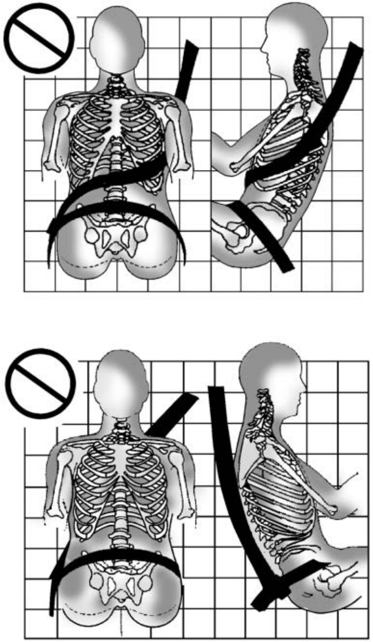
- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

⚠ Warning

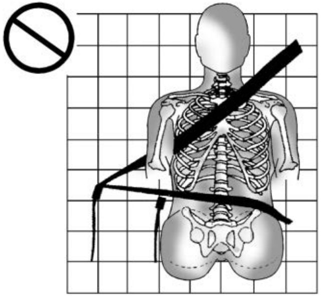
You can be seriously injured, or even killed, by not wearing your seat belt properly.



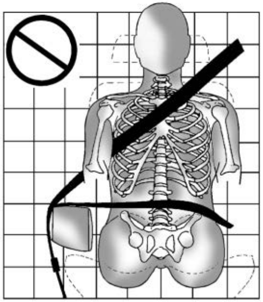
Never allow the lap or shoulder belt to become loose or twisted.



Never wear the shoulder belt under both arms or behind your back.



Always use the correct buckle for your seating position.



Never route the lap or shoulder belt over an armrest.

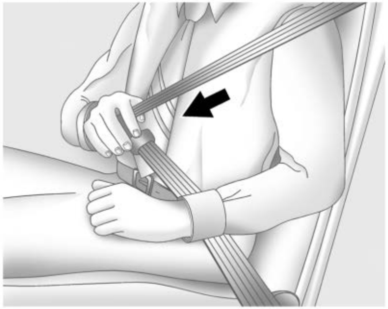
Lap-Shoulder Belt

All seating positions in the vehicle have a lap-shoulder belt.

If you are using a rear seating position with a detachable seat belt and the seat belt is not attached, see *Third Row Seats* ⇨ *74* for instructions on reconnecting the seat belt to the mini-buckle.

The following instructions explain how to wear a lap-shoulder belt properly.

1. Adjust the seat, if the seat is adjustable, so you can sit up straight. To see how, see “Seats” in the Index.

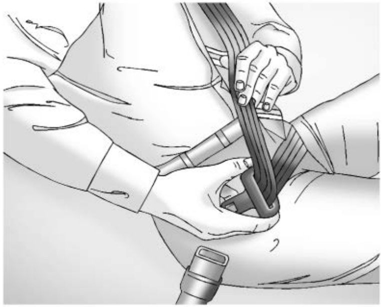


2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

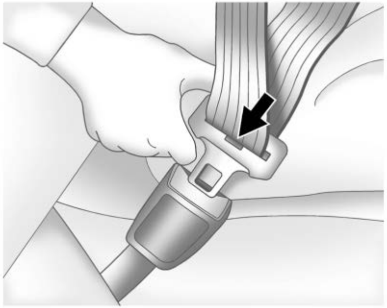
   The lap-shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

   If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. If this happens, let the belt go back all the way and start again.

Engaging the child restraint locking feature in the front outboard seating position may affect the passenger sensing system. See *Passenger Sensing System* ⇨ *92*.



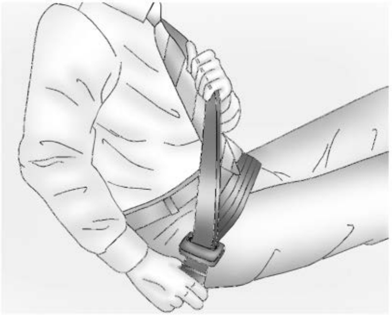
If the webbing locks in the latch plate before it reaches the buckle, tilt the latch plate flat to unlock.



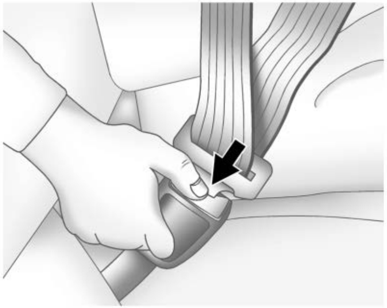
3. Push the latch plate into the buckle until it clicks.

   Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Seat Belt Extender* ⇨ *83*.

   Position the release button on the buckle so that the seat belt could be quickly unbuckled if necessary.



4. To make the lap part tight, pull up on the shoulder belt.



To unlatch the belt, push the button on the buckle. The belt should return to its stowed position.

Always stow the seat belt slowly. If the seat belt webbing returns quickly to the stowed position, the retractor may lock and cannot be pulled out. If this happens, pull the seat belt straight out firmly to unlock the webbing, and then release it. If the webbing is still locked in the retractor, see your dealer.

Before a door is closed, be sure the seat belt is out of the way. If a door is slammed against a seat belt, damage can occur to both the seat belt and the vehicle.

Seat Belt Pretensioners

This vehicle has seat belt pretensioners for front outboard occupants. Although the seat belt pretensioners cannot be seen, they are part of the seat belt assembly. They can help tighten the seat belts during the early stages of a moderate to severe frontal, near frontal, or rear crash if the threshold conditions for pretensioner activation are met. Seat belt pretensioners can also help tighten the seat belts in a side crash or a rollover event.

Pretensioners work only once. If the pretensioners activate in a crash, the pretensioners and probably other parts of the vehicle's seat belt system will need to be replaced. See *Replacing Seat Belt System Parts after a Crash ⇨ 84*.

Do not sit on the outboard seat belt while entering or exiting the vehicle or at any time while sitting in the seat. Sitting on the seat belt can damage the webbing and hardware.

Rear Seat Belt Comfort Guides

⚠ Warning

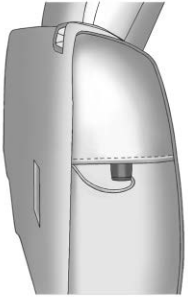
A seat belt that is not properly worn may not provide the protection needed in a crash. The person wearing the belt could be seriously injured. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

Rear seat belt comfort guides may provide added seat belt comfort for older children who have outgrown booster seats and for some adults. When installed on a shoulder belt, the comfort guide positions the shoulder belt away from the neck and head.

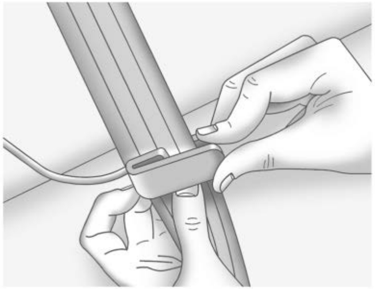
Second Row Outboard Seating Positions

The vehicle has comfort guides for the second row outboard seating positions. The comfort guides are stored in a pocket on the side of the seatback.

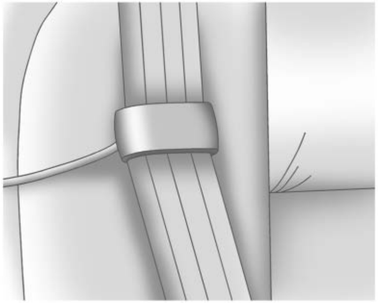
To install:



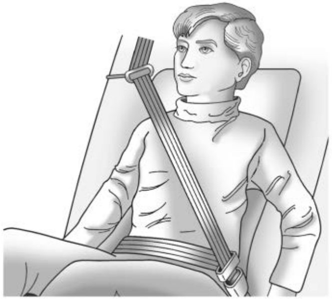
1. Remove the guide from its storage pocket on the side of the seat.



2. Place the guide over the belt, and insert the two edges of the belt into the slots of the guide.



3. Be sure that the belt is not twisted and it lies flat. The elastic cord must be behind the belt with the plastic guide on the front.



4. Buckle, position, and release the seat belt as described previously in this section. Make sure that the shoulder belt crosses the shoulder. The belt should be close to, but not contacting, the neck.

To remove and store the comfort guide, squeeze the belt edges together so that the seat belt can be removed from the guide. Slide the guide back into its storage pocket on the side of the seatback.

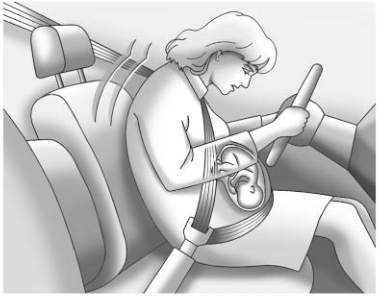
If the comfort guides are not equipped on the second row outboard seating positions seat belt, they are available through your dealer. Instructions are included with the guide.

Third Row Seating Positions

Comfort guides are available through your dealer for the third row seating positions. Instructions are included with the guide.

Seat Belt Use During Pregnancy

Seat belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they do not wear seat belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the fetus is to protect the mother. When a seat belt is worn properly, it is more likely that the fetus will not be hurt in a crash. For pregnant women, as for anyone, the key to making seat belts effective is wearing them properly.

Seat Belt Extender

If the vehicle's seat belt will fasten around you, you should use it.

But if a seat belt is not long enough, your dealer will order you an extender. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. To help avoid personal injury, do not let someone else use it, and use it only for the seat it is made to fit. The extender has been designed for adults. Never use it for securing child restraints. For more information on the proper use and fit of seat belt extenders see the instruction sheet that comes with the extender.

Safety System Check

Periodically check the seat belt reminder, seat belts, buckles, latch plates, retractors, shoulder belt height adjusters (if equipped), and seat belt anchorages to make sure they are all in working order. Look for any other loose or damaged seat belt system parts that might keep a seat belt system from performing properly. See your dealer to have it repaired. Torn, frayed, or twisted seat belts may not protect you in a crash. Torn or frayed seat belts can rip apart under impact forces. If a belt is torn or frayed, have it replaced immediately. If a belt is twisted, it may be possible to untwist by reversing the latch plate on the webbing. If the twist cannot be corrected, ask your dealer to fix it.

Make sure the seat belt reminder light is working. See *Seat Belt Reminders* ⇨ *140*.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ *84*.

Seat Belt Care

Keep belts clean and dry.

Seat belts should be properly cared for and maintained.

Seat belt hardware should be kept dry and free of dust or debris. As necessary, exterior hard surfaces and seat belt webbing may be lightly cleaned with mild soap and water. Ensure there is not excessive dust or debris in the mechanism. If dust or debris exists in the system please see the dealer. Parts may need to be replaced to ensure proper functionality of the system.

⚠ **Warning**

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

Replacing Seat Belt System Parts after a Crash

⚠ **Warning**

A crash can damage the seat belt system in the vehicle. A damaged seat belt system may not properly protect the person using it, resulting in serious injury or even death in a crash. To help make sure the seat belt systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

After a minor crash, replacement of seat belts may not be necessary. But the seat belt assemblies that were used during any crash may have been stressed or damaged. See your dealer to have the seat belt assemblies inspected or replaced.

New parts and repairs may be necessary even if the seat belt system was not being used at the time of the crash.

Have the seat belt pretensioners checked if the vehicle has been in a crash, or if the airbag readiness light stays on after you start the vehicle or while you are driving. See *Airbag Readiness Light* ⇨ *141*.

Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver
- A frontal airbag for the front outboard passenger
- A front center airbag for the driver and front outboard passenger
- A seat-mounted side impact airbag for the driver
- A seat-mounted side impact airbag for the front outboard passenger
- A roof-rail airbag for the driver and for the second and third row passengers seated directly behind the driver
- A roof-rail airbag for the front outboard passenger and the second and third row passengers seated directly behind the front outboard passenger

All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening.

For frontal airbags, the word AIRBAG is on the center of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For the front center airbag, the word AIRBAG is on the inboard side of the driver seatback.

For seat-mounted side impact airbags, the word AIRBAG is on the side of the seat closest to the door.

For roof-rail airbags, the word AIRBAG is on the ceiling or trim.

Airbags are designed to supplement the protection provided by seat belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.

Here are the most important things to know about the airbag system:

⚠ Warning

You can be severely injured or killed in a crash if you are not wearing your seat belt, even with airbags. Airbags are designed to work with seat belts, not replace them. Also, airbags are not designed to inflate in every crash. In some crashes seat belts are the only restraint. See *When Should an Airbag Inflate?* ⇨ *89*.

Wearing your seat belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Airbags are "supplemental restraints" to the seat belts. Everyone in the vehicle should wear a seat belt properly, whether or not there is an airbag for that person.

⚠ Warning

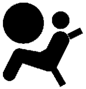
Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward. Seat belts help keep you in position before and during a crash. Always wear a seat belt, even with airbags. The driver should sit as far back as possible while still maintaining control of the vehicle. The seat belts and the front outboard passenger airbags are most effective when you are sitting well back and upright in the seat with both feet on the floor.

Occupants should not lean on or sleep against the front center armrest or console in vehicles with a front center airbag.

Occupants should not lean on or sleep against the door or side windows in seating positions with seat-mounted side impact airbags and/or roof-rail airbags.

⚠ Warning

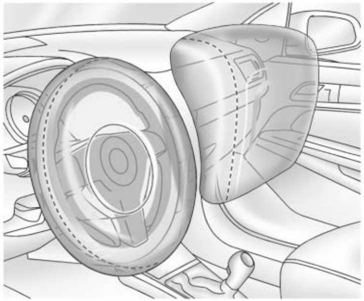
Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Always secure children properly in the vehicle. To read how, see *Older Children* ⇨ *98* or *Infants and Young Children* ⇨ *99*.



There is an airbag readiness light on the instrument cluster, which shows the airbag symbol.

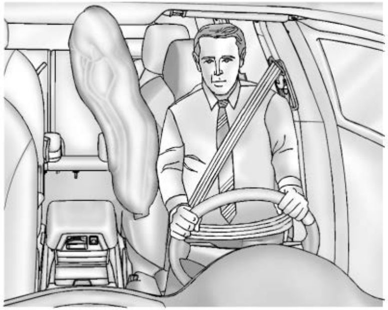
The system checks the airbag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Airbag Readiness Light* ⇨ *141*.

Where Are the Airbags?

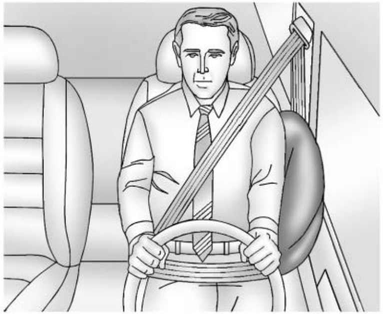


The driver frontal airbag is in the center of the steering wheel.

The front outboard passenger frontal airbag is in the passenger side instrument panel.

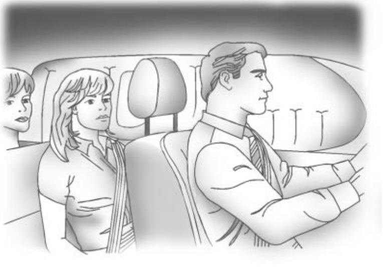


The front center airbag is in the inboard side of the driver seatback.



Driver Side Shown, Passenger Side Similar

The driver and front outboard passenger seat-mounted side impact airbags are in the side of the seatbacks closest to the door.



Driver Side Shown, Passenger Side Similar

The roof-rail airbags for the driver, front outboard passenger, and second and third row outboard passengers are in the ceiling above the side windows.

⚠ Warning

If something is between an occupant and an airbag, the airbag might not inflate properly or it might force the object into that person causing severe injury or even death. The path of an inflating airbag must be kept clear. Do not put anything between an occupant and an airbag, and do not attach or put anything on the steering wheel hub or on or near any other airbag covering.

Do not use seat or console accessories that block the inflation path of a seat-mounted side impact airbag or the front center airbag.

Never secure anything to the roof of a vehicle with roof-rail airbags by routing a rope or tie-down through any door or window opening. If you do, the path of an inflating roof-rail airbag will be blocked.

When Should an Airbag Inflate?

This vehicle is equipped with airbags. See *Airbag System* ⇨ *85*. Airbags are designed to inflate if the impact exceeds the specific airbag system's deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants. The vehicle has electronic sensors that help the airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

Frontal airbags are designed to inflate in moderate to severe frontal or near frontal crashes to help reduce the potential for severe injuries, mainly to the driver's or front outboard passenger's head and chest.

Whether the frontal airbags will or should inflate is not based primarily on how fast the vehicle is traveling. It depends on what is hit, the direction of the impact, and how quickly the vehicle slows down.

Frontal airbags may inflate at different crash speeds depending on whether the vehicle hits an object straight on or at an angle, and whether the object is fixed or moving, rigid or deformable, narrow or wide.

Frontal airbags are not intended to inflate during vehicle rollovers, in rear impacts, or in many side impacts.

In addition, the vehicle has advanced technology frontal airbags. Advanced technology frontal airbags adjust the restraint according to crash severity.

The front center airbag is designed to inflate in moderate to severe side crashes depending upon the location of the impact, when either side of the vehicle is struck. In addition, the front center airbag is designed to inflate when the sensing system predicts that the vehicle is about to roll over on its side. The front center airbag is not designed to inflate in frontal impacts, near frontal impacts, or rear impacts.

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. Seat-mounted side impact airbags are not designed to inflate in frontal impacts, near frontal impacts, rollovers, or rear impacts. A seat-mounted side impact airbag is designed to inflate on the side of the vehicle that is struck.

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags are designed to inflate during a rollover or in a severe frontal impact. Roof-rail airbags are not designed to inflate in rear impacts. Both roof-rail airbags will inflate when either side of the vehicle is struck, if the sensing system predicts that the vehicle is about to roll over on its side, or in a severe frontal impact.

In any particular crash, no one can say whether an airbag should have inflated simply because of the vehicle damage or repair costs.

What Makes an Airbag Inflate?

In a deployment event, the sensing system sends an electrical signal triggering a release of gas from the inflator. Gas from the inflator fills the airbag causing the bag to break out of the cover. The inflator, the airbag, and related hardware are all part of the airbag module.

For airbag locations, see *Where Are the Airbags?* ⇨ *87*.

How Does an Airbag Restrain?

In moderate to severe frontal or near frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. In moderate to severe side collisions, even belted occupants can contact the inside of the vehicle.

Airbags supplement the protection provided by seat belts by distributing the force of the impact more evenly over the occupant's body.

Rollover capable roof-rail airbags are designed to help contain the head and chest of occupants in the outboard seating positions in the first, second, and third rows. The rollover capable roof-rail airbags are designed to help reduce the risk of full or partial ejection in rollover events, although no system can prevent all such ejections.

But airbags would not help in many types of collisions, primarily because the occupant's motion is not toward those airbags. See *When Should an Airbag Inflate?* ⇨ *89*.

Airbags should never be regarded as anything more than a supplement to seat belts.

What Will You See after an Airbag Inflates?

After frontal and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize the airbags inflated. The front center airbag and roof-rail airbags may still be at least partially inflated for some time after they inflate. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags?* ⇨ *87*.

The parts of the airbag that come into contact with you may be warm, but not too hot to touch. There may be some smoke and dust coming from the vents in the deflated airbags. Airbag inflation does not prevent the driver from seeing out of the windshield or being able to steer the vehicle, nor does it prevent people from leaving the vehicle.

⚠ Warning

When an airbag inflates, there may be dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but cannot get out of the vehicle after an airbag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an airbag deployment, you should seek medical attention.

The vehicle has a feature that may automatically unlock the doors, turn on the interior lamps and hazard warning flashers, and shut off the fuel system after the airbags inflate. The feature may also activate, without airbag inflation, after an event that exceeds a predetermined threshold. After turning the ignition off and then on again, the fuel system will return to normal operation; the doors can be locked, the interior lamps can be turned off, and the hazard warning flashers can be turned off using the controls for those features. If any of these systems are damaged in the crash they may not operate as normal.

⚠ Warning

A crash severe enough to inflate the airbags may have also damaged important functions in the vehicle, such as the fuel system, brake and steering systems, etc. Even if the vehicle appears to be drivable after a moderate crash, there may be concealed damage that could make it difficult to safely operate the vehicle.

Use caution if you should attempt to restart the engine after a crash has occurred.

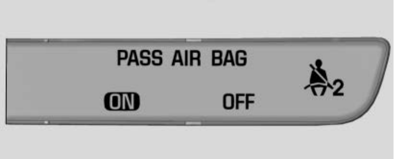
In many crashes severe enough to inflate the airbag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the front outboard passenger airbag.

- Airbags are designed to inflate only once. After an airbag inflates, you will need some new parts for the airbag system. If you do not get them, the airbag system will not be there to help protect you in another crash. A new system will include airbag modules and possibly other parts. The service manual for the vehicle covers the need to replace other parts.
- The vehicle has a crash sensing and diagnostic module which records information after a crash. See *Vehicle Data Recording and Privacy* ⇨ *399* and *Event Data Recorders* ⇨ *399*.
- Let only qualified technicians work on the airbag systems. Improper service can mean that

an airbag system will not work properly. See your dealer for service.

Passenger Sensing System

The vehicle has a passenger sensing system for the front outboard passenger position. The passenger airbag status indicator will light on the overhead console when the vehicle is started.



The words ON and OFF will be visible during the system check. When the system check is complete, either the word ON or OFF will be visible. See *Passenger Airbag Status Indicator* ⇨ *141*.

The passenger sensing system turns off the front outboard passenger frontal airbag under certain conditions. No other airbag is affected by the passenger sensing system.

The passenger sensing system works with sensors that are part of the front outboard passenger seat and seat belt. The sensors are designed to detect the presence of a properly seated occupant and determine if the front outboard passenger frontal airbag should be allowed to inflate or not.

According to accident statistics, children are safer when properly secured in a rear seat in the correct child restraint for their weight and size.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag inflates.

⚠ Warning

A child in a rear-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though the airbag is turned off.

Never put a rear-facing child restraint in the front seat, even if the airbag is off. If securing a forward-facing child restraint in

(Continued)

Warning (Continued)

the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure child restraints in the rear seat. Consider using another vehicle to transport the child when a rear seat is not available.

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag if:

- The front outboard passenger seat is unoccupied.
- The system determines an infant is present in a child restraint.
- A front outboard passenger takes his/her weight off of the seat for a period of time.
- There is a critical problem with the airbag system or the passenger sensing system.

When the passenger sensing system has turned off the front outboard passenger frontal airbag, the OFF indicator will light and stay lit as a reminder that the airbag is off. See *Passenger Airbag Status Indicator* ⇨ *141*.

The passenger sensing system is designed to turn on the front outboard passenger frontal airbag anytime the system senses that a person of adult size is sitting properly in the front outboard passenger seat.

When the passenger sensing system has allowed the airbag to be enabled, the ON indicator will light and stay lit as a reminder that the airbag is active.

For some children, including children in child restraints, and for very small adults, the passenger sensing system may or may not turn off the front outboard passenger frontal airbag, depending upon the person's seating posture and body build. Everyone in the vehicle who has outgrown child restraints should wear a seat belt properly — whether or not there is an airbag for that person.

⚠ Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ *141* for more information, including important safety information.

If the On Indicator Is Lit for a Child Restraint

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag if the system determines that an infant is present in a child restraint. If a child restraint has been installed and the ON indicator is lit:

1. Turn the vehicle off.
2. Remove the child restraint from the vehicle.

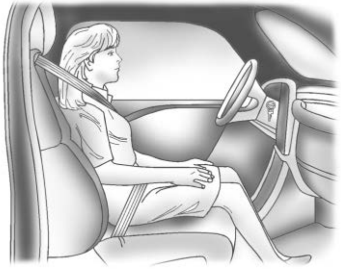
3. Remove any additional items from the seat such as blankets, cushions, seat covers, seat heaters, or seat massagers.
4. Reinstall the child restraint following the directions provided by the child restraint manufacturer and refer to *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ *113* or *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ *115*.

   Make sure the seat belt retractor is locked by pulling the shoulder belt all the way out of the retractor when installing the child restraint, even if the child restraint is equipped with a seat belt lock off. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.
5. If, after reinstalling the child restraint and restarting the vehicle, the ON indicator is still lit, turn the vehicle off. Then slightly recline the vehicle seatback and adjust the seat cushion, if adjustable, to make sure that the vehicle seatback is not pushing the child restraint into the seat cushion.

   Also make sure the child restraint is not trapped under the vehicle head restraint. If this happens, adjust the head restraint. See *Head Restraints* ⇨ *61*.
6. Restart the vehicle.

The passenger sensing system may or may not turn off the airbag for a child in a child restraint depending upon the child's size. It is better to secure the child restraint in a rear seat. Never put a rear-facing child restraint in the front seat, even if the ON indicator is not lit.

If the Off Indicator Is Lit for an Adult-Sized Occupant



If a person of adult size is sitting in the front outboard passenger seat, but the OFF indicator is lit, it could be because that person is not sitting properly in the seat or that the child restraint locking feature is engaged. Use the following steps to allow the system to detect that person and enable the front outboard passenger frontal airbag:

1. Turn the vehicle off.

2. Remove any additional material from the seat, such as blankets, cushions, seat covers, seat heaters, or seat massagers.
3. Place the seatback in the fully upright position.
4. Have the person sit upright in the seat, centered on the seat cushion, with legs comfortably extended.
5. If the shoulder portion of the belt is pulled out all the way, the child restraint locking feature will be engaged. This may unintentionally cause the passenger sensing system to turn the airbag off for some adult-sized occupants. If this happens, unbuckle the belt, let the belt go back all the way, and then buckle the belt again without pulling the belt out all the way.
6. Restart the vehicle and have the person remain in this position for two to three minutes after the ON indicator is lit.

⚠ Warning

If the front outboard passenger airbag is turned off for an adult-sized occupant, the airbag will not be able to inflate and help protect that person in a crash, resulting in an increased risk of serious injury or even death. An adult-sized occupant should not ride in the front outboard passenger seat, if the passenger airbag OFF indicator is lit.

Additional Factors Affecting System Operation

Seat belts help keep the passenger in position on the seat during vehicle maneuvers and braking, which helps the passenger sensing system maintain the passenger airbag status. See “Seat Belts” and “Child Restraints” in the Index for additional information about the importance of proper restraint use.

A thick layer of additional material, such as a blanket or cushion, or aftermarket equipment such as seat covers, seat heaters, and seat massagers can affect how well the passenger sensing system operates. We recommend that you not use seat covers or other aftermarket equipment except when approved by GM for your specific vehicle. See *Adding Equipment to the Airbag-Equipped Vehicle ⇨ 96* for more information about modifications that can affect how the system operates.

The ON indicator may be lit if an object, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, is put on an unoccupied seat. If this is not desired, remove the object from the seat.

⚠ Warning

Stowing articles under the passenger seat or between the passenger seat cushion and

(Continued)

Warning (Continued)

seatback may interfere with the proper operation of the passenger sensing system.

Servicing the Airbag-Equipped Vehicle

Airbags affect how the vehicle should be serviced. There are parts of the airbag system in several places around the vehicle. Your dealer and the service manual have information about servicing the vehicle and the airbag system. To purchase a service manual, see *Publication Ordering Information* ⇨ *396*.

⚠ Warning

For up to 10 seconds after the vehicle is turned off and the battery is disconnected, an airbag can still inflate during improper service. You can be injured if you

(Continued)

Warning (Continued)

are close to an airbag when it inflates. Avoid yellow connectors. They are probably part of the airbag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

Adding Equipment to the Airbag-Equipped Vehicle

Adding accessories that change the vehicle's frame, bumper system, height, front end, or side sheet metal may keep the airbag system from working properly.

The operation of the airbag system can also be affected by changing, including improperly repairing or replacing, any parts of the following:

- Airbag system, including airbag modules, front or side impact sensors, sensing and diagnostic module, airbag wiring, or front center console
- Front seats, including stitching, seams or zippers
- Seat belts
- Steering wheel, instrument panel, overhead console, ceiling trim, or pillar garnish trim
- Inner door seals, including speakers

Your dealer and the service manual have information about the location of the airbag modules and sensors, sensing and diagnostic module, and airbag wiring along with the proper replacement procedures.

In addition, the vehicle has a passenger sensing system for the front outboard passenger position, which includes sensors that are part of the passenger's seat. The passenger sensing system may not operate properly if the original seat trim is replaced with non-GM covers, upholstery, or trim, or with GM covers, upholstery, or trim designed for a different vehicle. Any object, such as an aftermarket seat heater or a comfort enhancing pad or device, installed under or on top of the seat fabric, could also interfere with the operation of the passenger sensing system. This could either prevent proper deployment of the passenger airbag(s) or prevent the passenger sensing system from properly turning off the passenger airbag(s). See *Passenger Sensing System* ⇨ *92*.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ⇨ *341* for additional important information.

If the vehicle must be modified because you have a disability and you have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, call Customer Assistance. See *Customer Assistance Offices* ⇨ *389*.

Airbag System Check

The airbag system does not need regularly scheduled maintenance or replacement. Make sure the airbag readiness light is working. See *Airbag Readiness Light* ⇨ *141*.

Caution

If an airbag covering is damaged, opened, or broken, the airbag may not work properly. Do not open or break the airbag coverings. If there are any opened or broken airbag coverings, have the airbag coverings, have the airbag covering and/or airbag module replaced. For the location of the airbags, see *Where Are the Airbags?* ⇨ *87*. See your dealer for service.

Replacing Airbag System Parts after a Crash

⚠ Warning

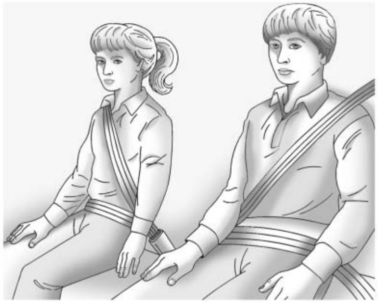
A crash can damage the airbag systems in the vehicle.
A damaged airbag system may not properly protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

If an airbag inflates, you will need to replace airbag system parts. See your dealer for service.

If the airbag readiness light stays on after the vehicle is started or comes on when you are driving, the airbag system may not work properly. Have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ *141*.

Child Restraints

Older Children



Older children who have outgrown booster seats should wear the vehicle’s seat belts.

The manufacturer instructions that come with the booster seat state the weight and height limitations for that booster. Use a booster seat with a lap-shoulder belt until the child passes the fit test below:

- Sit all the way back on the seat. Do the knees bend at the seat edge? If yes, continue. If no, return to the booster seat.
- Buckle the lap-shoulder belt. Does the shoulder belt rest on the shoulder? If yes, continue. If no, try using the rear seat belt comfort guide, if available. See “Rear Seat Belt Comfort Guides” under *Lap-Shoulder Belt* ⇨ *79*. If a comfort guide is not available, or if the shoulder belt still does not rest on the shoulder, then return to the booster seat.
- Does the lap belt fit low and snug on the hips, touching the thighs? If yes, continue. If no, return to the booster seat.
- Can proper seat belt fit be maintained for the length of the trip? If yes, continue. If no, return to the booster seat.

Q: What is the proper way to wear seat belts?

A: An older child should wear a lap-shoulder belt and get the additional restraint a shoulder belt can provide. The shoulder belt should not cross the face or neck. The lap belt should fit snugly below the hips, just touching the top of the thighs. This applies belt force to the child's pelvic bones in a crash. It should never be worn over the abdomen, which could cause severe or even fatal internal injuries in a crash.

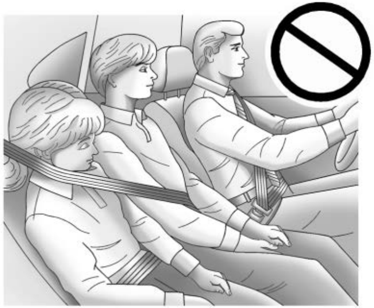
Also see “Rear Seat Belt Comfort Guides” under *Lap-Shoulder Belt* ⇨ *79*.

According to accident statistics, children are safer when properly restrained in a rear seating position.

In a crash, children who are not buckled up can strike other people who are buckled up, or can be thrown out of the vehicle. Older children need to use seat belts properly.

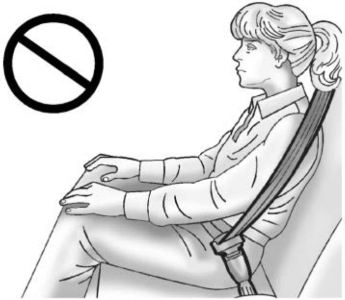
⚠ Warning

Never allow more than one child to wear the same seat belt. The seat belt cannot properly spread the impact forces. In a crash, they can be crushed together and seriously injured. A seat belt must be used by only one person at a time.



⚠ Warning

Never allow a child to wear the seat belt with the shoulder belt behind their back. A child can be seriously injured by not wearing the lap-shoulder belt properly. In a crash, the child would not be restrained by the shoulder belt. The child could move too far forward increasing the chance of head and neck injury. The child might also slide under the lap belt. The belt force would then be applied right on the abdomen. That could cause serious or fatal injuries. The shoulder belt should go over the shoulder and across the chest.



Infants and Young Children

Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

⚠ Warning

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around a child's neck. If the shoulder belt is locked and tightened around a child's neck, the only way to loosen the belt is to cut it.

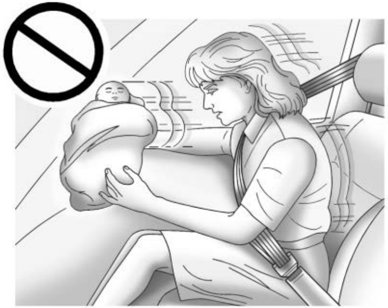
Never leave children unattended in a vehicle and never allow children to play with the seat belts.

Every time infants and young children ride in vehicles, they should have the protection provided by appropriate child restraints. Neither the vehicle's seat belt system nor its airbag system is designed for them.

Children who are not restrained properly can strike other people, or can be thrown out of the vehicle.

⚠ Warning

Never hold an infant or a child while riding in a vehicle. Due to crash forces, an infant or a child will become so heavy it is not possible to hold it during a crash. For example, in a crash at only 40 km/h (25 mph), a 5.5 kg (12 lb) infant will suddenly become a 110 kg (240 lb) force on a person's arms. An infant or child should be secured in an appropriate restraint.



⚠ Warning

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Never put a rear-facing child restraint in the front passenger seat. Secure a rear-facing child restraint in a rear seat.

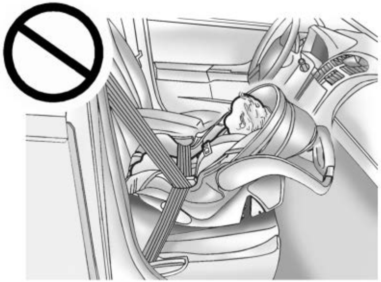
It is also better to secure a forward-facing child restraint in a rear seat. If a forward-facing child restraint must be secured in the

(Continued)

Warning (Continued)

front passenger seat, always move the front passenger seat as far back as it will go.

If a child restraint is installed in the second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.



Child restraints are devices used to restrain, seat, or position children in the vehicle and are sometimes called child seats or car seats.

There are three basic types of child restraints:

- Forward-facing child restraints
- Rear-facing child restraints
- Belt-positioning booster seats

The proper child restraint for your child depends on their size, weight, and age, and also on whether the child restraint is compatible with the vehicle in which it will be used.

For each type of child restraint, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle. If it is, the restraint will have a label saying that it meets federal motor vehicle safety standards. The restraint manufacturer's instructions that come with the restraint state the weight and height limitations for a particular child restraint. In addition, there are many kinds of restraints available for children with special needs.

⚠ Warning

To reduce the risk of neck and head injury in a crash, infants and toddlers should be secured in a rear-facing child restraint until age two, or until they reach the maximum height and weight limits of their child restraint.

⚠ Warning

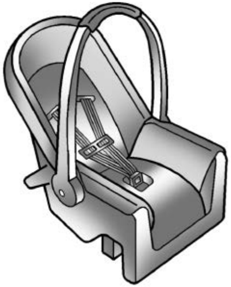
A young child's hip bones are still so small that the vehicle's regular seat belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body area that is unprotected by any bony structure. This alone could cause serious or fatal

(Continued)

Warning (Continued)

injuries. To reduce the risk of serious or fatal injuries during a crash, young children should always be secured in appropriate child restraints.

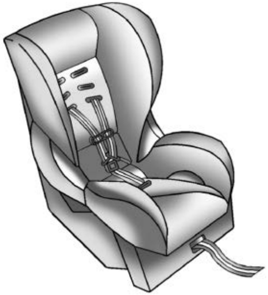
Child Restraint Systems



Rear-Facing Infant Restraint

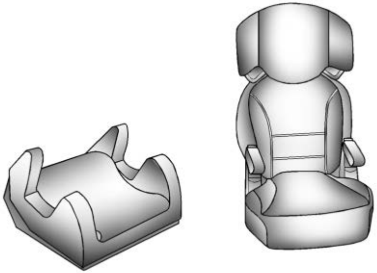
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.



Forward-Facing Child Restraint

A forward-facing child restraint provides restraint for the child's body with the harness.



Booster Seats

A belt-positioning booster seat is used for children who have outgrown their forward-facing child restraint. Boosters are designed to improve the fit of the vehicle's seat belt system until the child is large enough for the vehicle seat belts to fit properly without a booster seat. See the seat belt fit test in *Older Children* ⇨ *98*.

Securing an Add-On Child Restraint in the Vehicle

> **⚠ Warning**
>
> A child can be seriously injured or killed in a crash if the child restraint is not properly secured in the vehicle. Secure the child restraint properly in the vehicle using the vehicle's seat belt or LATCH system, following the instructions that came with that child restraint and the instructions in this manual.

To help reduce the chance of injury, the child restraint must be secured in the vehicle. Child restraints must be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt, or by the LATCH system. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105* for more information. Children can be endangered in a crash if the child restraint is not properly secured in the vehicle.

When securing an add-on child restraint, refer to the instructions that come with the restraint which may be on the restraint itself or in a booklet, or both, and to this manual. The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

In some areas of the United States and Canada, Certified Child Passenger Safety Technicians (CPSTs) are available to inspect and demonstrate how to correctly use and install child restraints. In the U.S., refer to the National Highway Traffic Safety Administration (NHTSA) website to locate the nearest child safety seat inspection station. For CPST availability in Canada, check with Transport Canada or the Provincial Ministry of Transportation office.

Securing the Child Within the Child Restraint

> **⚠ Warning**
>
> A child can be seriously injured or killed in a crash if the child is not properly secured in the child restraint. Secure the child properly following the instructions that came with that child restraint.

Where to Put the Restraint

According to accident statistics, children and infants are safer when properly restrained in an appropriate child restraint secured in a rear seating position.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

The vehicle is equipped with a front center airbag in the inboard side of the driver seat. Even with a front center airbag, a child restraint can be installed in any second row seating position.

Never put a rear-facing child restraint in the front. This is because the risk to the rear-facing child is so great if the airbag deploys.

⚠ Warning

A child in a rear-facing child restraint can be seriously injured or killed if the front passenger airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the front passenger airbag inflates and the passenger seat is in a forward position.

(Continued)

Warning (Continued)

Even if the passenger sensing system has turned off the front passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off.

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System* ⇨ *92* for additional information.

If a child restraint is installed in a second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

Child restraints and booster seats vary considerably in size, and some may fit in certain seating positions better than others.

Depending on where you place the child restraint and the size of the child restraint, you may not be able to access adjacent seat belts or LATCH anchors for additional passengers or child restraints. Adjacent seating positions should not be used if the child restraint prevents access to or interferes with the routing of the seat belt.

Wherever a child restraint is installed, be sure to follow the instructions that came with the child restraint and secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

Lower Anchors and Tethers for Children (LATCH System)

The LATCH system secures a child restraint during driving or in a crash. LATCH attachments on the child restraint are used to attach the child restraint to the anchors in the vehicle. The LATCH system is designed to make installation of a child restraint easier.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. LATCH-compatible rear-facing and forward-facing child seats can be properly installed using either the LATCH anchors or the vehicle's seat belts. Do not use both the seat belts and the LATCH anchorage system to secure a rear-facing or forward-facing child seat.

Booster seats use the vehicle's seat belts to secure the child and the booster seat. If the manufacturer recommends that the booster seat be secured with the LATCH system, this can be done as long as the booster seat can be positioned properly and there is no interference with the proper positioning of the lap-shoulder belt on the child.

Make sure to follow the instructions that came with the child restraint, and also the instructions in this manual.

When installing a child restraint with a top tether, you must also use either the lower anchors or the seat belts to properly secure the child restraint. A child restraint must never be attached using only the top tether.

The LATCH anchorage system can be used until the combined weight of the child plus the child restraint is 29.5 kg (65 lbs). Use the seat belt alone instead of the LATCH anchorage system once the combined weight is more than 29.5 kg (65 lbs).

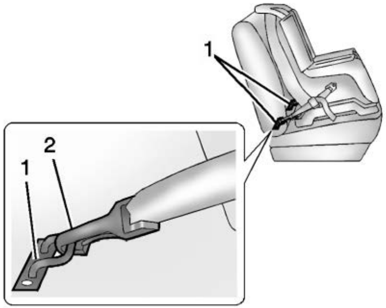
See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ *113* or *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ *115*.

Child restraints built after March 2014 will be labeled with the specific child weight up to which the LATCH system can be used to install the restraint.

The following explains how to attach a child restraint with these attachments in the vehicle.

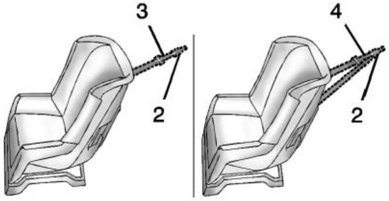
Not all vehicle seating positions have lower anchors. In this case, the seat belt must be used (with top tether where available) to secure the child restraint. See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ *113* or *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ *115*.

Lower Anchors



Lower anchors (1) are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments (2).

Top Tether Anchor

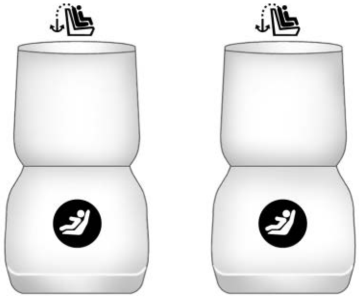


A top tether (3, 4) is used to secure the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment hook (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child restraint during driving or in a crash.

The child restraint may have a single tether (3) or a dual tether (4). Either will have a single attachment hook (2) to secure the top tether to the anchor.

Some child restraints with top tethers are designed for use with or without the top tether being attached. Others require the top tether always to be attached. In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached. Be sure to read and follow the instructions for your child restraint.

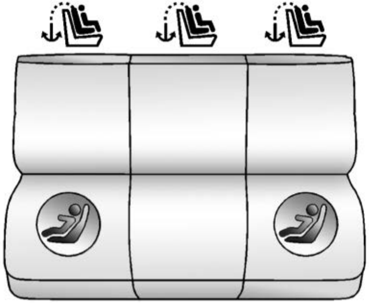
Lower Anchor and Top Tether Anchor Locations



Second Row — Captain's Chairs

⚓ **:** Seating positions with top tether anchors.

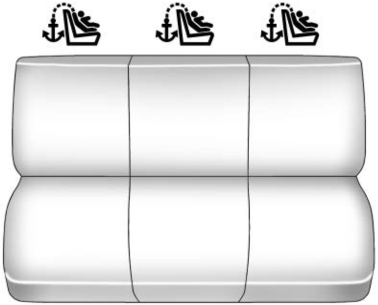
: Seating positions with two lower anchors.



Second Row — 60/40 Bench

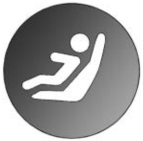
: Seating positions with top tether anchors.

: Seating positions with two lower anchors.

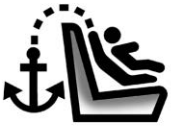


Third Row

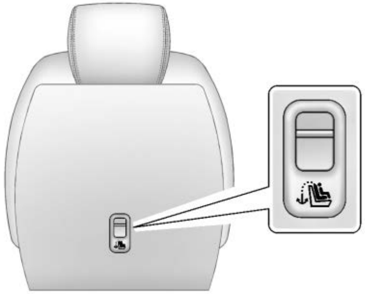
: Seating positions with top tether anchors.



To assist in locating the lower anchors, each seating position with lower anchors has two labels with the lower anchor symbol on them, near the crease between the seatback and the seat cushion.



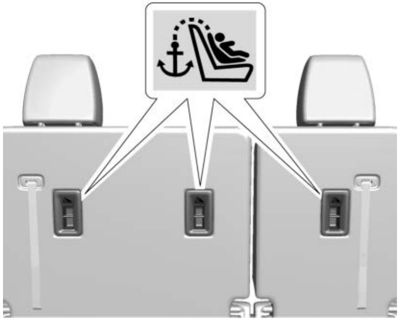
To assist in locating the top tether anchors, the top tether anchor symbol is near the anchor.



Second Row — Captain's Chairs Shown, Bench Similar

The top tether anchors are on the rear of the seatback for each seating position in the second row.

Be sure to use an anchor on the same side of the vehicle as the seating position where the child restraint will be placed.



Third Row

The top tether anchors are on the rear of the seatback for each seating position in the third row.

Be sure to use an anchor on the same side of the vehicle as the seating position where the child restraint will be placed.

Do not secure a child restraint in a position without a top tether anchor if a national or local law requires that the top tether be attached, or if the instructions that come with the child restraint say that the top tether must be attached.

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position. See *Where to Put the Restraint* ⇨ *103* for additional information.

Securing a Child Restraint Designed for the LATCH System

⚠ Warning

A child could be seriously injured or killed in a crash if the child restraint is not properly attached to the vehicle using either the LATCH anchors or the vehicle seat belt. Follow the instructions that came with the child restraint and the instructions in this manual.

⚠ Warning

To reduce the risk of serious or fatal injuries during a crash, do not attach more than one child restraint to a single anchor. Attaching more than one child restraint to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured.

⚠ Warning

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor,

(Continued)

Warning (Continued)

but it cannot do this if it is wrapped around a child's neck. If the shoulder belt is locked and tightened around a child's neck, the only way to loosen the belt is to cut it.

Buckle any unused seat belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out of the retractor to set the lock, and tighten the belt behind the child restraint after the child restraint has been installed.

Caution

Do not let the LATCH attachments rub against the vehicle's seat belts. This may damage these parts. If necessary, move buckled seat belts to avoid rubbing the LATCH attachments.

(Continued)

Caution (Continued)

Do not fold the rear seatback when the seat is occupied. Do not fold the empty rear seat with a seat belt buckled. This could damage the seat belt or the seat. Unbuckle and return the seat belt to its stowed position, before folding the seat.

The vehicle is equipped with a front center airbag in the inboard side of the driver seat. Even with a front center airbag, a child restraint can be installed in any second row seating position. If a child restraint is installed in a second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.

If you need to secure more than one child restraint in the rear seat, see *Where to Put the Restraint ⇨ 103*.

1. Put the child restraint on the seat. If the head restraint interferes with the proper installation of the child restraint, the head restraint may be removed. See "Head Restraint Removal and Reinstallation" at the end of this section.
2. Attach and tighten the lower attachments to the lower anchors. If the child restraint does not have lower attachments or the desired seating position does not have lower anchors, secure the child restraint with the top tether and the seat belts. Refer to your child restraint manufacturer instructions and the instructions in this manual.
    - 2.1. Find the lower anchors for the desired seating position.
    - 2.2. To access the lower anchors in the second row, it may help to recline the seatback.

    Third row seatbacks must be upright before placing the child restraint on the seat.

  2.3. Put the child restraint on the seat.

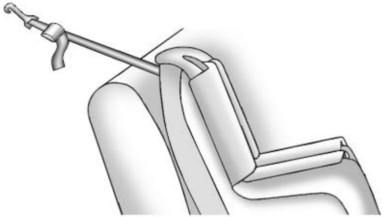
  2.4. Attach and tighten the lower attachments on the child restraint to the lower anchors.

    If necessary, adjust the angle of the second row seatback to achieve a tight installation. Make sure the second row bench seatbacks are aligned at the same angle.

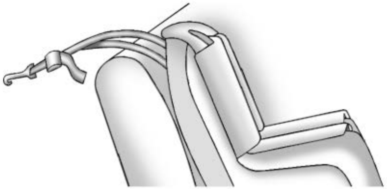
3. If the child restraint manufacturer recommends that the top tether be attached, attach and tighten the top tether to the top tether anchor, if the vehicle has one. Refer to the child restraint instructions and the following steps:

  3.1. Find the top tether anchor.

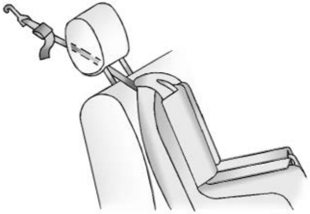
  3.2. Route, attach, and tighten the top tether according to your child restraint instructions and the following instructions:



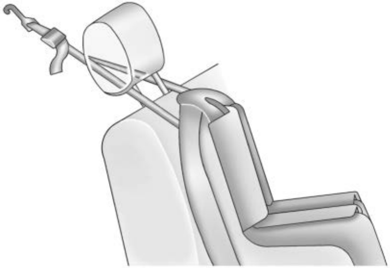
If the position you are using does not have a head restraint and you are using a single tether, route the tether over the seatback.



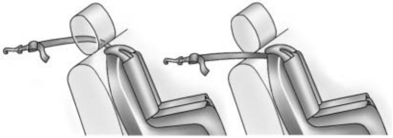
If the position you are using does not have a head restraint and you are using a dual tether, route the tether over the seatback.



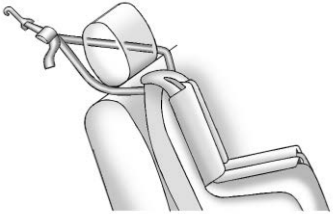
If the position you are using has an adjustable head restraint and you are using a single tether, raise the head restraint and route the tether under the head restraint and in between the head restraint posts.



If the position you are using has an adjustable head restraint and you are using a dual tether, raise head restraint and route the tether around the head restraint posts.



If the position you are using has a fixed head restraint and you are using a single tether, route the tether under the head restraint and in between the head restraint posts or around the outboard side of the head restraint.



If the position you are using has a fixed head restraint and you are using a dual tether, route the tether around the head restraint.

4. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the LATCH path and attempt to move it side to side and back and forth. There should be no more than 2.5 cm (1 in) of movement, for proper installation.

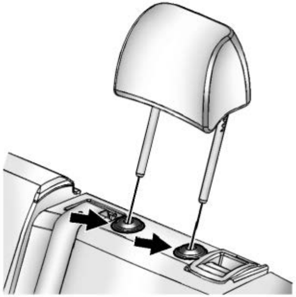
Head Restraint Removal and Reinstallation

The second row outboard head restraints can be removed if they interfere with the proper installation of the child restraint.

The third row head restraints cannot be removed.

To remove the second row head restraint:

1. Partially fold the seatback forward. See *Rear Seats* ⇨ *70* for additional information.

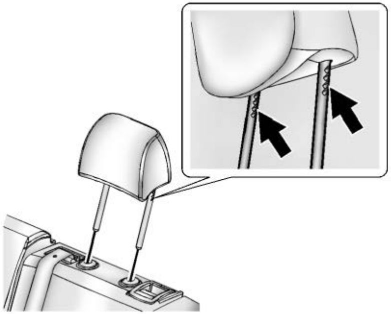


2. Press both buttons on the head restraint posts at the same time, and pull up on the head restraint.
3. Store the head restraint in the cargo area of the vehicle.
4. When the child restraint is removed, reinstall the head restraint before the seating position is used.

⚠ Warning

With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/ spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

To reinstall the head restraint:



1. Insert the head restraint posts into the holes in the top of the seatback. The notches on the posts must face the driver side of the vehicle.
2. Push the head restraint down.
3. Try to move the head restraint to make sure that it is locked in place.

Replacing LATCH System Parts After a Crash

> **⚠ Warning**
>
> A crash can damage the LATCH system in the vehicle. A damaged LATCH system may not properly secure the child restraint, resulting in serious injury or even death in a crash. To help make sure the LATCH system is working properly after a crash, see your dealer to have the system inspected and any necessary replacements made as soon as possible.

If the vehicle has the LATCH system and it was being used during a crash, new LATCH system parts may be needed.

New parts and repairs may be necessary even if the LATCH system was not being used at the time of the crash.

Securing Child Restraints (With the Seat Belt in the Rear Seat)

The vehicle is equipped with a front center airbag in the inboard side of the driver seat. Even with a front center airbag, a child restraint can be installed in any second row seating position. If you install a child restraint in a second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

If the child restraint has the LATCH system, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105* for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a seat belt and it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105* for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top tether must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

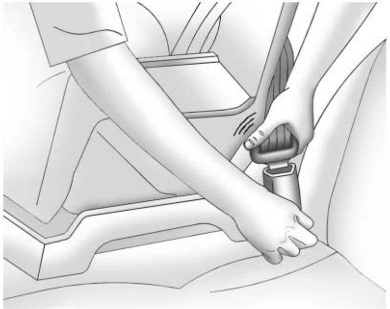
If the child restraint or vehicle seat position does not have the LATCH system, you will be using the seat belt to secure the child restraint. Be sure to follow the instructions that came with the child restraint.

If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint* ⇨ *103*.

1. Put the child restraint on the seat.

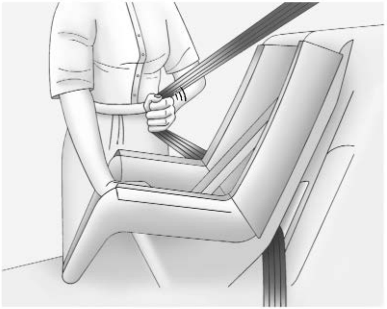
If the head restraint interferes with the proper installation of the child restraint, the head restraint may be removed. See "Head Restraint Removal and Reinstallation" under Lower Anchors and Tethers for Children (LATCH System).

2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's seat belt through or around the child restraint. The child restraint instructions will show you how.

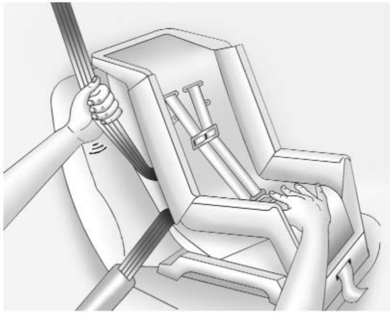


3. Push the latch plate into the buckle until it clicks.

Position the release button on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled if necessary.



4. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



5. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

   Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 4 and 5.

6. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105*.
7. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

To remove the child restraint, unbuckle the vehicle seat belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

If the head restraint was removed, reinstall it before the seating position is used. See "Head Restraint Removal and Reinstallation" under *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105* for additional information on installing the head restraint properly.

Securing Child Restraints (With the Seat Belt in the Front Seat)

This vehicle has airbags. A rear seat is a safer place to secure a forward-facing child restraint. See *Where to Put the Restraint* ⇨ *103*.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag under certain conditions. See *Passenger Sensing System* ⇨ *92* and *Passenger Airbag Status Indicator* ⇨ *141* for more information, including important safety information.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag deploys.

⚠ Warning

A child in a rear-facing child restraint can be seriously injured or killed if the front outboard passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the front outboard passenger frontal airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the front outboard passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off.

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a

(Continued)

Warning (Continued)

forward-facing child restraint in the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System* ⇨ *92* for additional information.

If the child restraint uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *105* for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top tether must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

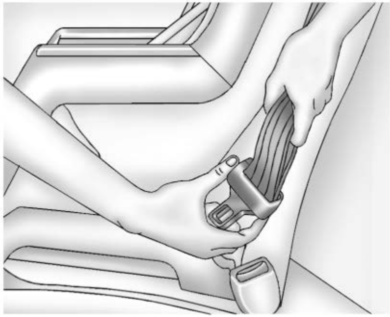
When using the lap-shoulder belt to secure the child restraint in this position, follow the instructions that came with the child restraint and the following instructions:

1. Move the seat as far back as it will go before securing the forward-facing child restraint. Move the seat upward or the seatback to an upright position, if needed, to get a tight installation of the child restraint.

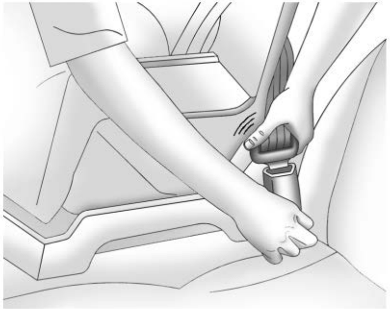
   When the passenger sensing system has turned off the front outboard passenger frontal airbag, the OFF indicator on the passenger airbag status indicator should light and stay lit when you start the vehicle. See *Passenger Airbag Status Indicator* ⇨ *141*.

2. Put the child restraint on the seat.

3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's seat belt through or around the child restraint. The child restraint instructions will show you how.

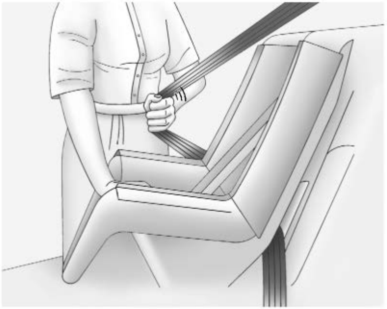


   Tilt the latch plate to adjust the belt if needed.

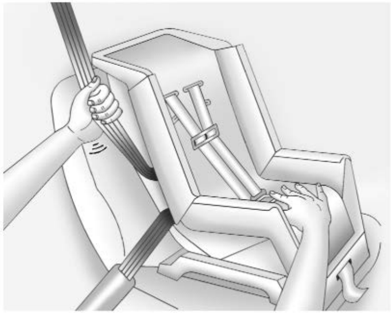


4. Push the latch plate into the buckle until it clicks.

   Position the release button on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled if necessary.



5. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



6. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

   Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 5 and 6.

7. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

If the airbag is off, the OFF indicator in the passenger airbag status indicator will come on and stay on when the vehicle is started.

If a child restraint has been installed and the ON indicator is lit, see “If the On Indicator Is Lit for a Child Restraint” under *Passenger Sensing System* ⇨ *92*.

To remove the child restraint, unbuckle the vehicle seat belt and let it return to the stowed position.

Storage

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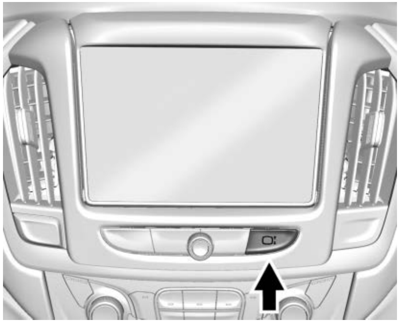
Storage Compartments

⚠ Warning

Do not store heavy or sharp objects in storage compartments. In a crash, these objects may cause the cover to open and could result in injury.

Instrument Panel Storage



If equipped with storage behind the radio, press ▭↕ and hold to open. There is a charging only USB port inside. See *USB Port ⇨ 185*.

Press ▭↕ and hold again to close.

Caution

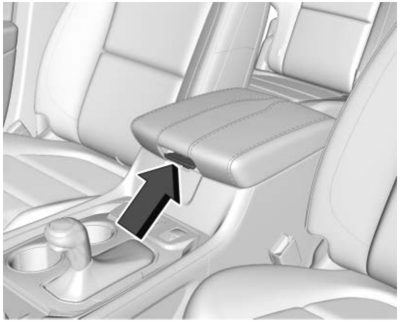
To avoid damage, do not manually force the display to move.

Keep the storage area closed when not in use.

Glove Box

Lift up on the glove box lever to open it.

Center Console Storage



The center console has storage under the armrest. Pull up the latch and lift to open.

There is a removable organizer on top of the storage bin.

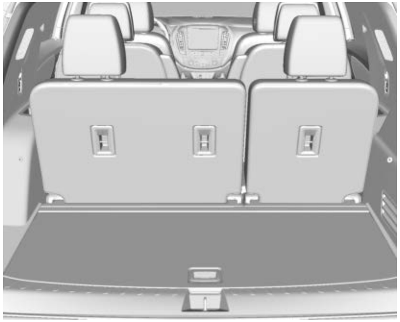
The center console also has the following:

- A forward bin
- An open storage bin on the back of the console

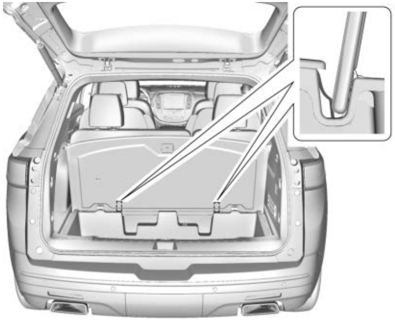
There are also charging only USB ports on the rear of the center console and in the third row seating area. See *Power Outlets* ⇨ *130* and *USB Port* ⇨ *185*.

Additional Storage Features

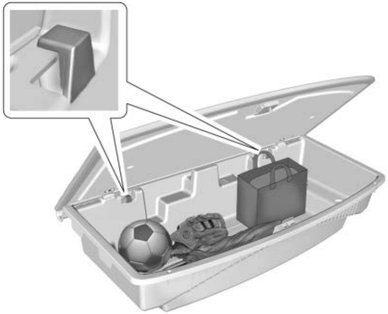
Cargo Management System



Lift the load floor to access the cargo management system.



The hold open devices on the cargo bin allow the load floor to remain open without removal.



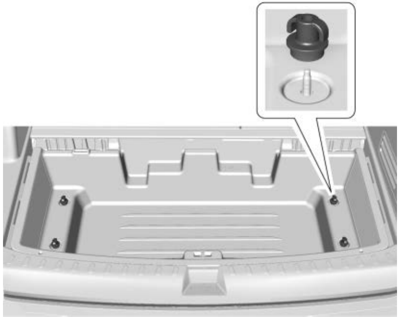
The cargo management system is used to organize storage in the cargo area. There are two convenience hooks that can support up to 5 kg (11 lb.).

After storing items in the cargo management system, make sure to properly latch the load floor.

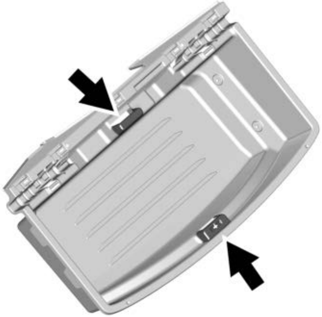
Removal Procedure

To access the spare tire, the cargo management system must be removed.

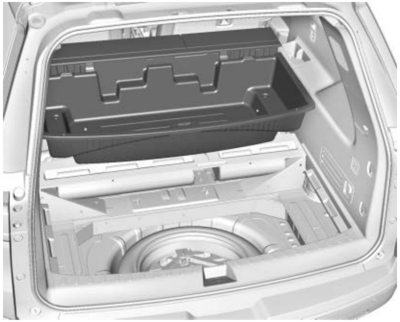
1. Open the cargo cover.



2. Remove the four wing nuts.



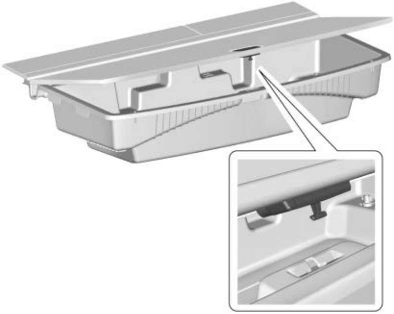
3. Lift up on the handles on both sides to remove the cargo management system to access the spare tire.



4. The storage bin can be placed on the lowered third row seats while accessing the spare tire.

Installation Procedure

1. Install the cargo management system in the vehicle.
2. Install the four wing nuts.



3. Make sure to properly latch the load door.

⚠ Warning

An improperly latched cargo cover, or cargo cover left in the open position, could separate during a crash or sudden maneuver potentially impacting vehicle occupants. Someone could be injured. Be sure to return the cover to the closed position and latch before driving.

Roof Rack System

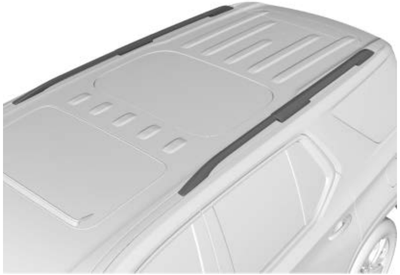
⚠ Warning

If something is carried on top of the vehicle that is longer or wider than the roof rack — like paneling, plywood, or a mattress — the wind can catch it while the vehicle is being driven. The item being carried could be violently torn off, and this could cause a collision and damage the vehicle. Never carry something longer or wider than the roof rack on top of the vehicle unless using a GM certified accessory carrier.

If equipped, the roof rack can be used to load items. For roof racks that do not have crossrails included, GM certified crossrails can be purchased as an accessory. See your dealer.

Caution

Loading cargo on the roof rack that weighs more than 100 kg (220 lb) or hangs over the rear or sides of the vehicle may damage the vehicle. Load cargo so that it rests evenly between the crossrails, making sure to fasten cargo securely.



To prevent damage or loss of cargo when driving, check to make sure crossrails and cargo are securely fastened. Loading cargo on the roof rack will make the vehicle's center of gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers; otherwise it may result in loss of control. If driving for a long distance, on rough roads, or at high speeds, occasionally stop the vehicle to make sure the cargo remains in its place. Do not exceed the maximum vehicle capacity when loading the vehicle. For more information on vehicle capacity and loading, see *Vehicle Load Limits* ⇨ *220*.

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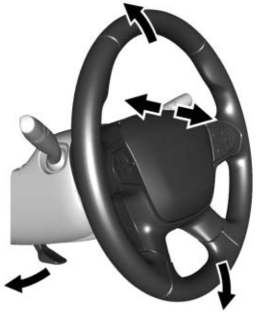
Controls

Steering Wheel Adjustment

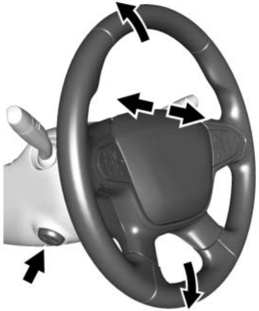


To adjust the steering wheel:

1. Pull the lever down.
2. Move the steering wheel up or down.
3. Pull or push the steering wheel closer or away from you.
4. Pull the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

Power Tilt and Telescoping Steering Wheel

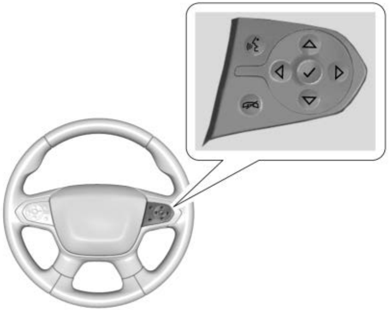


If equipped, the control is on the left side of the steering column.

- Push the control up or down to tilt the steering wheel up or down.
- Push the control forward or rearward to move the steering wheel toward the front or rear of the vehicle.

Do not adjust the steering wheel while driving.

Steering Wheel Controls



If equipped, some audio controls can be adjusted at the steering wheel.

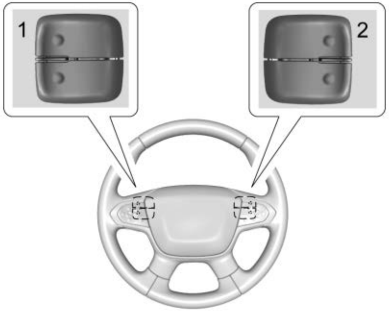
: For vehicles with OnStar or a Bluetooth system, press to interact with those systems. See *OnStar Overview* ⇨ *401*, *Bluetooth (Overview)* ⇨ *192* or *Bluetooth (Infotainment Controls)* ⇨ *193*, or “Bluetooth (Overview)” in the infotainment manual.

☎ **:** Press to reject an incoming call or end a current call. Press to mute or unmute the infotainment system when not on a call.

◁ **or** ▷ **:** Press to go to the previous or next menu option.

△ **or** ▽ **:** Press to go to the next or previous selection.

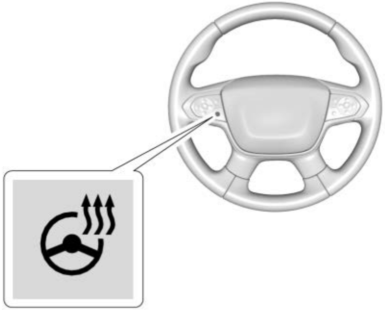
✓ **:** Press to select a highlighted menu option.



The favorite and volume switches are on the back of the steering wheel.

1. Favorite: When on a radio source, press to select the next or previous favorite. When on a media source, press to select the next or previous track.
2. Volume: Press to increase or decrease the volume.

Heated Steering Wheel



♨ **:** If equipped, press to turn it on or off. A light next to the button displays when the feature is turned on.

The steering wheel takes about three minutes to start heating.

Automatic Heated Steering Wheel

If equipped with remote start, the heated steering wheel will turn on automatically during a remote start along with the heated seats when it is cold outside. The heated steering wheel indicator light may not come on.

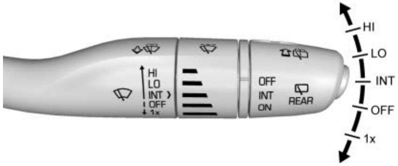
If equipped with auto heated seats, the heated steering wheel will turn on when the auto heated seat is activated. The heated steering wheel indicator will follow the state of the steering wheel heat.

See *Heated and Ventilated Front Seats* ⇨ *69* and *Vehicle Personalization* ⇨ *155*.

Horn

Press 📯 on the steering wheel pad to sound the horn.

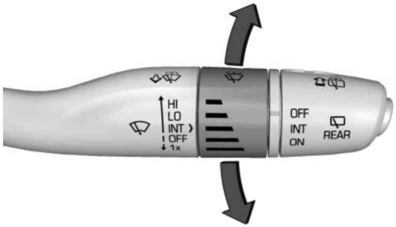
Windshield Wiper/Washer



With the ignition on or in ACC/ ACCESSORY, move the windshield wiper lever to select the wiper speed.

HI : Use for fast wipes.

LO : Use for slow wipes.



INT : Move the windshield wiper lever to INT. Turn the band up for more frequent wipes or down for less frequent wipes.

OFF : Use to turn the wipers off.

1X : For a single wipe, briefly move the wiper lever down. For several wipes, hold the wiper lever down.

⇩ **:** Pull the windshield wiper lever toward you to spray windshield washer fluid and activate the windshield wipers. The wipers will continue until the lever is released or the maximum wash time is reached. When the windshield wiper lever is released, additional wipes may occur depending on how long the windshield washer had been activated. See *Washer Fluid* ⇨ *304* for information on filling the windshield washer fluid reservoir.

⚠ Warning

In freezing weather, do not use the washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

Clear snow and ice from the wiper blades and windshield before using them. If frozen to the windshield, carefully loosen or thaw them. Damaged blades should be replaced. See *Wiper Blade Replacement* ⇨ *309*.

Heavy snow or ice can overload the wiper motor. See *Electrical System Overload* ⇨ *315*.

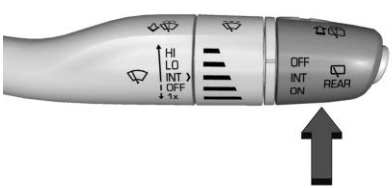
Wiper Parking

If the ignition is turned off while the wipers are on LO, HI, or INT, they will immediately stop.

If the windshield wiper lever is then moved to OFF before the driver door is opened or within 10 minutes, the wipers will restart and move to the base of the windshield.

If the ignition is turned off while the wipers are performing wipes due to windshield washing, the wipers continue to run until they reach the base of the windshield.

Rear Window Wiper/ Washer



The rear window wiper/washer controls are on the end of the windshield wiper lever.

Turn the controls to adjust the setting.

OFF : Turns the wiper off.

INT : Turns on the rear wiper with a delay between wipes.

ON : Turns on the rear wiper.

⇪ : Push the windshield wiper lever forward to spray washer fluid on the rear window. The wipers will clear the rear window and either stop or return to your preset speed. For more washer cycles, press and hold the lever.

The rear window wiper/washer will not operate if the liftgate is open or ajar. If the liftgate is opened while the rear wiper is on, the wiper returns to the parked position and stops.

Rear Wiper Arm Assembly Protection

When using an automatic car wash, move the rear wiper control to OFF to disable the rear wiper. In some vehicles, if the transmission is in N (Neutral) and the vehicle speed is very slow, the rear wiper will automatically park.

The wiper operations return to normal when the transmission is no longer in N (Neutral) or the vehicle speed has increased.

Reverse Gear Wipes

If the rear wiper control is off, the rear wiper will automatically operate continuously when the vehicle is in R (Reverse) and the front windshield wiper is performing low or high speed wipes. If the rear wiper control is off, the vehicle is in R (Reverse), and the front windshield wiper is performing interval wipes, then the rear wiper automatically performs interval wipes.

This feature can be turned on or off. See *Vehicle Personalization* ⇨ *155*.

The windshield washer reservoir is used for the windshield and the rear window. Check the fluid level in the reservoir if either washer is not working. See *Washer Fluid* ⇨ *304*.

Compass

The vehicle may have a compass display on the Driver Information Center (DIC). The compass receives its heading and other information from the Global Positioning

System (GPS) antenna, StabiliTrak/Electronic Stability Control (ESC), and vehicle speed information.

The compass system is designed to operate for a certain number of miles or degrees of turn before needing a signal from the GPS satellites. When the compass display shows CAL, drive the vehicle for a short distance in an open area where it can receive a GPS signal. The compass system will automatically determine when a GPS signal is restored and provide a heading again.

Clock

Base Radio

The infotainment system controls are used to access the time and date settings through the menu system. See *Operation* ⇨ *179* on how to use the menu system.

Setting the Time and Date

When Auto Set is enabled the time cannot be manually set.

1. Press ⌂, then touch SETTINGS.
2. Touch Time and Date, then Set Time or Set Date.
3. Touch + or − to adjust the value.
4. Touch ▼ or ▲ to adjust AM or PM for 12 hour format.
5. Touch ↩.

Auto Set

Auto Set requires an active OnStar or connected service plan.

If auto set is on, the time displayed on the clock may not update immediately when driving into a new time zone.

1. Press ⌂, then touch SETTINGS.
2. Touch Time and Date, then Auto Set.
3. Choose from the available selections.
4. Touch ↩.

Setting the 12/24 Hour Format

1. Press ⌂, then touch SETTINGS.
2. Touch Time and Date, then select 12h or 24h format.
3. Touch ↩.

Setting the Month and Day Format

1. Press ⌂, then touch SETTINGS.
2. Touch Time and Date, then Set Date Format.
3. Select DD/MM/YYYY (day/month/year), MM/DD/YYYY (month/day/year), or YYYY/MM/DD (year/month/day) format.
4. Touch ↩.

Uplevel Radio

The infotainment system controls are used to access the time and date settings through the menu system. See “Using the System” under “Introduction” in the infotainment manual.

To set the time:

1. Touch SETTINGS from the Home Page, then touch Time and Date.
2. Touch Set Time and touch ∧ or ∨ to increase or decrease hours, minutes, and AM or PM. Touch 12–24 Hr for 12 or 24 hour clock.
3. Touch the back icon to go back to the previous menu.

Auto Set requires an active OnStar or connected service plan.

If auto set is on, the time displayed on the clock may not update immediately when driving into a new time zone.

To set the date:

1. Touch SETTINGS from the Home Page, then touch Time and Date.
2. Touch Set Date and touch ∧ or ∨ to increase or decrease month, day, or year.
3. Touch the back icon to go back to the previous menu.

To set the clock display:

1. Touch SETTINGS and touch Time and Date.
2. Touch Clock Display and touch Off or On to turn the clock display off or on.
3. Touch the back icon to go back to the previous menu.

The clock settings can also be accessed by touching the time display, then touching Set.

Power Outlets

Power Outlets 12-Volt Direct Current

The vehicle has two 12-volt outlets that can be used to plug in electrical equipment, such as a cell phone or MP3 player.

The power outlets are located:

- On the center stack below the climate controls.
- In the rear cargo area.

Lift the cover to access the outlet and replace when not in use.

There are also charging only USB ports on the rear of the center console and in the third row seating area.

⚠ **Warning**

Power is always supplied to the rear cargo power outlet. Do not leave electrical equipment plugged in when the vehicle is not in use because the vehicle could catch fire and cause injury or death.

Caution

Leaving electrical equipment plugged in for an extended period of time while the ignition is in LOCK/OFF will drain the battery. Always unplug electrical equipment when not in use and do not plug in equipment that exceeds the maximum 15 ampere rating.

Certain accessory plugs may not be compatible with the accessory power outlet and could overload vehicle and adapter fuses. If a problem is experienced, see your dealer.

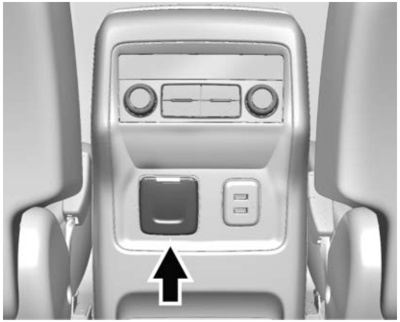
When adding electrical equipment, be sure to follow the proper installation instructions included with the equipment. See *Add-On Electrical Equipment* ⇨ *286*.

Caution

Hanging heavy equipment from the power outlet can cause damage not covered by the vehicle warranty. The power outlets are designed for accessory power plugs only, such as cell phone charge cords.

Power Outlet 110V/120V Alternating Current

If equipped with this power outlet it can be used to plug in electrical equipment that uses a maximum limit of 150 watts.



The power outlet is on the rear of the center console.

An indicator light on the outlet turns on to show it is in use. The light comes on when the ignition is on, equipment requiring less than 150 watts is plugged into the outlet, and no system fault is detected.

The indicator light does not come on when the ignition is off or if the equipment is not fully seated into the outlet.

If equipment is connected using more than 150 watts or a system fault is detected, a protection circuit shuts off the power supply and the indicator light turns off. To reset the circuit, unplug the item and plug it back in or turn the Retained Accessory Power (RAP) off and then back on. See *Retained Accessory Power (RAP)* ⇨ *230*. The power restarts when equipment using 150 watts or less is plugged into the outlet and a system fault is not detected.

The power outlet is not designed for and may not work properly, if the following are plugged in:

- Equipment with high initial peak wattage, such as compressor-driven refrigerators and electric power tools
- Other equipment requiring an extremely stable power supply, such as microcomputer-controlled electric blankets and touch sensor lamps
- Medical equipment

See *High Voltage Devices and Wiring* ⇨ *314*.

Wireless Charging

If equipped, the vehicle has wireless charging in the storage bin in front of the floor console. The system operates at 145 kHz and wirelessly charges one Qi compatible smartphone. The power output of the system is capable of charging at a rate up to 3 amp (15W), as requested by the compatible smartphone. See *Radio Frequency Statement* ⇨ *397*.

⚠ Warning

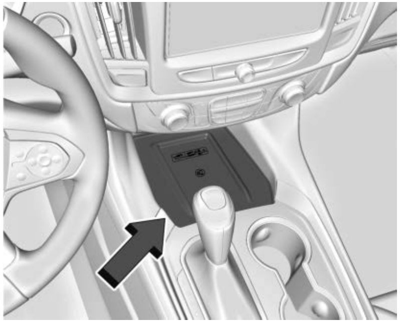
Wireless charging can affect the operation of an implanted pacemaker or other medical devices. If you have one, it is recommended to consult with your doctor before using the wireless charging system.

The vehicle must be on, in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active. The wireless charging feature may not correctly indicate charging when the vehicle is in RAP. See *Retained Accessory Power (RAP)* ⇨ *230*.

⚠ Warning

Remove all objects from the charging pad before charging your compatible smartphone. Objects, such as coins, keys, rings, paper clips, or cards, between the smartphone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the smartphone and charger, remove the smartphone and allow the object to cool before removing it from the charging pad, to prevent burns.

The operating temperature is −20 °C (−4 °F) to 60 °C (140 °F) for the charging system and 0 °C (32 °F) to 35 °C (95 °F) for the smartphone.



To charge a compatible smartphone:

1. Remove all objects from the charging pad. The system may not charge if there are any objects between the smartphone and charging pad.
2. Place the smartphone face up on the charging pad.

   To maximize the charge rate, ensure the smartphone is fully seated and centered in the holder with nothing under it. A thick smartphone case may prevent the wireless charger from working, or may reduce the charging performance. See your dealer for additional information.
3. The ⚡ will display on the ☎ on the infotainment display. This indicates that the smartphone is properly positioned and charging.

If ⚡ does not appear on the infotainment display:

1. Remove the smartphone from the pad and wait three seconds.
2. Turn the smartphone 180 degrees before placing/ aligning the smartphone on the pad again.

Software Acknowledgements

Certain Wireless Charging Module product from LG Electronics, Inc. ("LGE") contains the open source software detailed below. Refer to the indicated open source licenses (as are included following this notice) for the terms and conditions of their use.

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Freescale-WCT library

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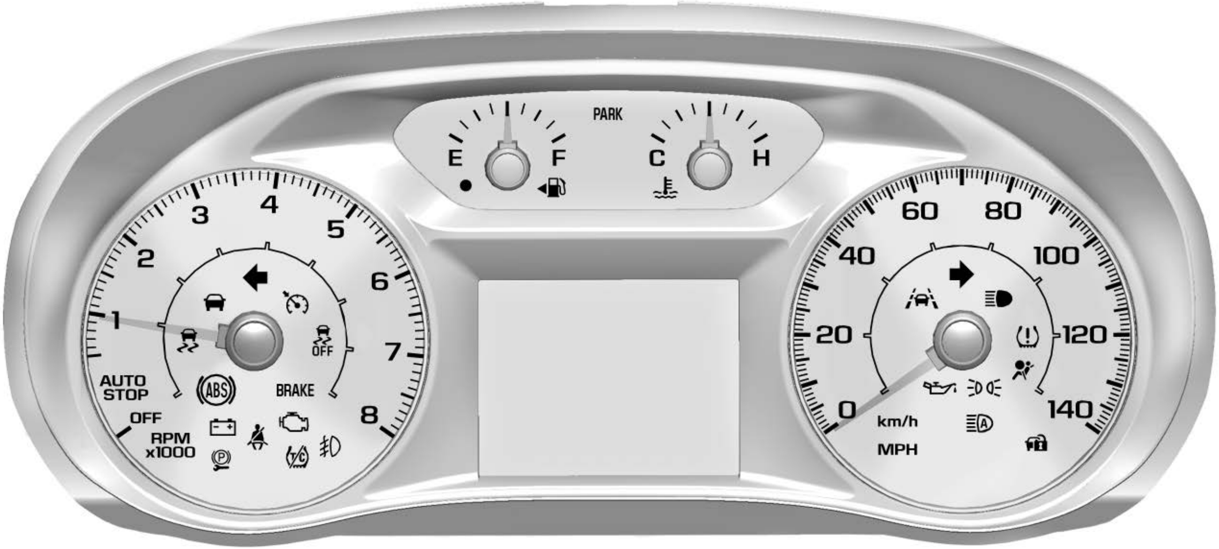
Warning Lights, Gauges, and Indicators

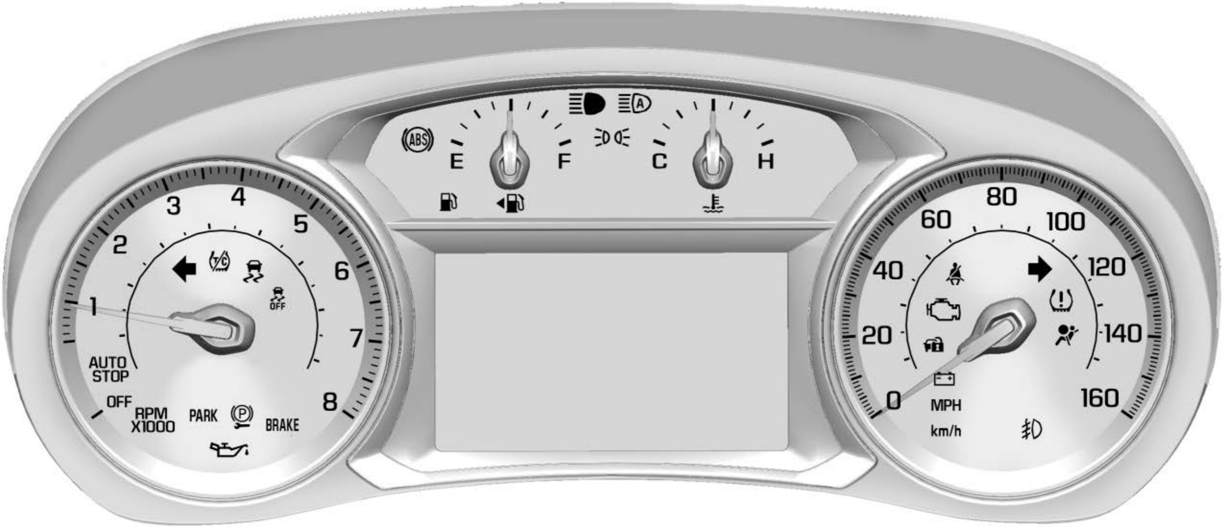
Warning lights and gauges can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to the warning lights and gauges could prevent injury.

Some warning lights come on briefly when the engine is started to indicate they are working. When one of the warning lights comes on and stays on while driving, or when one of the gauges shows there may be a problem, check the section that explains what to do. Waiting to do repairs can be costly and even dangerous.

Instrument Cluster


PARK
E
F
C
H
1
2
3
4
5
6
7
8
AUTO
STOP
OFF
RPM
x1000
ABS
BRAKE
OFF
0
20
40
60
80
100
120
140
km/h
MPH

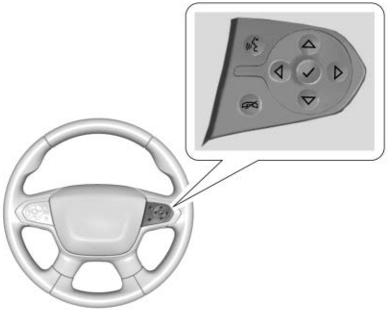
Base Level English Shown, Metric Similar


E
F
C
H
1
2
3
4
5
6
7
8
AUTO STOP
OFF
RPM X1000
PARK
BRAKE
OFF
0
20
40
60
80
100
120
140
160
MPH
km/h

Uplevel English Shown, Metric Similar

Cluster Menu

There is an interactive display area in the center of the instrument cluster.



Use the right steering wheel control to open and scroll through the different items and displays.

Press ◁ to access the cluster applications. Use △ or ▽ to scroll through the list of available applications. Not all applications will be available on all vehicles.

- Info App. This is where the selected Driver Information Center (DIC) displays can be viewed. See *Driver Information Center (DIC)* ⇨ *151*.
- Audio
- Phone
- Navigation
- Options

Audio

Press ✓ to select the Audio app, then press ▷ to enter the Audio menu. In the Audio menu browse for music, select from the favorites, or change the audio source. Use △ or ▽ to change the station or go to the next or previous track.

Phone

Press ✓ to select the Phone app, then press ▷ to enter the Phone menu. In the Phone menu, if there is no active phone call, view recent calls, or scroll through contacts. If there is an active call, mute the phone or switch to handset operation.

Navigation

Press ✓ to select the Navigation app, then press ▷ to enter the Navigation menu. If there is no active route, you can resume the last route and turn the voice prompts on/off. If there is an active route, press ✓ to cancel or resume route guidance or turn the voice prompts on or off.

Options

Press ✓ to select the Options app, then press ▷ to enter the Options menu. Use △ or ▽ to scroll through items in the Options menu.

Units : Press ▷ while Units is displayed to enter the Units menu. Choose English, Imperial, or metric units by pressing ✓ while the desired item is highlighted. A checkmark will be displayed next to the selected item.

Info Pages : Press ▷ while Info Pages is displayed to enter the Info Pages menu and select the items to be displayed in the Info app. See *Driver Information Center (DIC)* ⇨ *151*.

Speed Warning : The Speed Warning display allows the driver to set a speed that they do not want to exceed. To set the Speed Warning press ▷ when Speed Warning is displayed.

Press △ or ▽ to adjust the value. Press ✓ to set the speed.

Once the speed is set, this feature can be turned off by pressing ✓ while viewing this page. If the selected speed limit is exceeded, a pop-up warning is displayed with a chime.

Software Information : Displays open source software information.

Speedometer

The speedometer shows the vehicle's speed in either kilometers per hour (km/h) or miles per hour (mph).

Odometer

The odometer shows how far the vehicle has been driven, in either kilometers or miles.

Trip Odometer

The trip odometer shows how far the vehicle has been driven since the trip odometer was last reset.

The trip odometer is accessed and reset through the Driver Information Center (DIC). See *Driver Information Center (DIC)* ⇨ *151*.

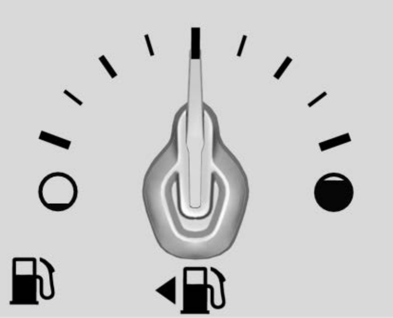
Tachometer

The tachometer displays the engine speed in revolutions per minute (rpm).

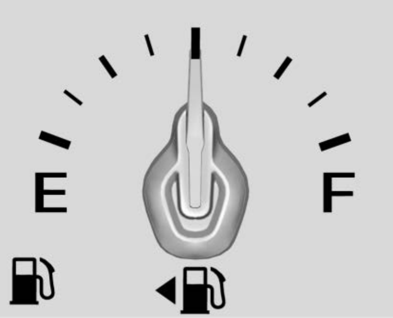
For vehicles with the Stop/Start system, when the ignition is on, the tachometer indicates the vehicle status. When pointing to AUTO STOP, the engine is off but the vehicle is on and can move. The engine could auto start at any time. When the indicator points to OFF, the vehicle is off.

When the engine is on, the tachometer will indicate the engine's revolutions per minute (rpm). The tachometer may vary by several hundred rpm's, during Auto Stop mode, when the engine is shutting off and restarting.

Fuel Gauge



Metric Uplevel



English Uplevel

When the ignition is on, the fuel gauge indicates about how much fuel is left in the tank.

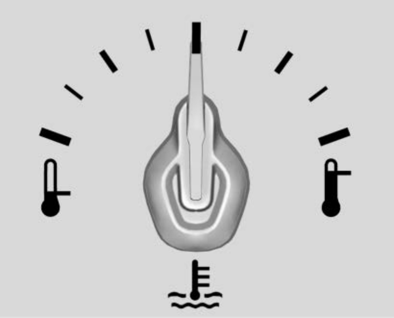
An arrow on the fuel gauge indicates the side of the vehicle the fuel door is on.

When the indicator nears empty, the low fuel light comes on. There is a small amount of fuel left, but the fuel tank should be filled soon.

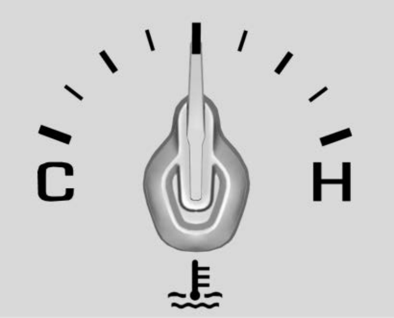
Here are four things that some owners ask about. None of these show a problem with the fuel gauge:

- At the service station, the fuel pump shuts off before the gauge reads full.
- It takes a little more or less fuel to fill up than the gauge indicated. For example, the gauge indicated the tank was half full, but it actually took a little more or less than half the tank's capacity to fill the tank.
- The gauge moves a little while turning a corner or speeding up.
- The gauge takes a few seconds to stabilize after the ignition is turned on, and goes back to empty when the ignition is turned off.

Engine Coolant Temperature Gauge



Metric Uplevel



English Uplevel

This gauge shows the engine coolant temperature.

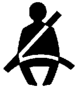
If the pointer moves toward the warning area at the high end of the gauge, the engine is too hot.

If the engine coolant has overheated and the vehicle has been operating under normal driving conditions, pull off the road, stop the vehicle, and turn off the engine as soon as possible. See *Engine Overheating* ⇨ *303*.

Seat Belt Reminders

Driver Seat Belt Reminder Light

There is a driver seat belt reminder light on the instrument cluster.

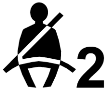


When the vehicle is started, this light flashes and a chime may come on to remind the driver to fasten their seat belt. Then the light stays on solid until the belt is buckled. This cycle may continue several times if the driver remains or becomes unbuckled while the vehicle is moving.

If the driver seat belt is buckled, neither the light nor the chime comes on.

Passenger Seat Belt Reminder Light

There is a passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ *92*.



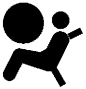
When the vehicle is started, this light flashes and a chime may come on to remind passengers to fasten their seat belt. Then the light stays on solid until the belt is buckled. This cycle continues several times if the passenger remains or becomes unbuckled while the vehicle is moving.

If the passenger seat belt is buckled, neither the chime nor the light comes on.

The front passenger seat belt reminder light and chime may turn on if an object is put on the seat such as a briefcase, handbag, grocery bag, laptop, or other electronic device. To turn off the reminder light and/or chime, remove the object from the seat or buckle the seat belt.

Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. The system check includes the airbag sensor(s), the passenger sensing system, the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Airbag System* ⇨ *85*.



The airbag readiness light comes on for several seconds when the vehicle is started. If the light does not come on then, have it fixed immediately.

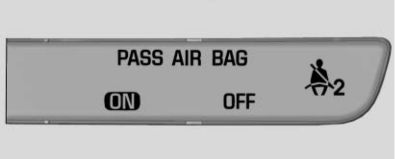
⚠ Warning

If the airbag readiness light stays on after the vehicle is started or comes on while driving, it means the airbag system might not be working properly. The airbags in the vehicle might not inflate in a crash, or they could even inflate without a crash. To help avoid injury, have the vehicle serviced right away.

If there is a problem with the airbag system, a Driver Information Center (DIC) message may also come on.

Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System* ⇨ *92* for important safety information. The overhead console has a passenger airbag status indicator.



When the vehicle is started, the passenger airbag status indicator will light ON and OFF for several seconds as a system check. Then, after several more seconds, the status indicator will light either ON or OFF to let you know the status of the front outboard passenger frontal airbag.

If the word ON is lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag is allowed to inflate.

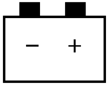
If the word OFF is lit on the passenger airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag.

If, after several seconds, both status indicator lights remain on, or if there are no lights at all, there may be a problem with the lights or the passenger sensing system. See your dealer for service.

⚠ Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ *141* for more information, including important safety information.

Charging System Light



The charging system light comes on briefly when the ignition is turned on, but the engine is not running, as a check to show the light is working. The light turns off when the engine is started. If it does not, have the vehicle serviced by your dealer.

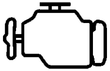
If the light stays on, or comes on while driving, there may be a problem with the electrical charging system. Have it checked by your dealer. Driving while this light is on could drain the battery.

When this light comes on, the Driver Information Center (DIC) also displays a message.

If a short distance must be driven with the light on, be sure to turn off all accessories, such as the radio and air conditioner.

Malfunction Indicator Lamp (Check Engine Light)

This light is part of the vehicle's emission control on-board diagnostic system. If this light is on while the engine is running, a malfunction has been detected and the vehicle may require service. The light should come on to show that it is working when the ignition is in Service Mode. See *Ignition Positions* ⇨ *225*.



Malfunctions are often indicated by the system before any problem is noticeable. Being aware of the light and seeking service promptly when it comes on may prevent damage.

Caution

If the vehicle is driven continually with this light on, the emission control system may not work as well, the fuel economy may be lower, and the vehicle may not run smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.

Caution

Modifications to the engine, transmission, exhaust, intake, or fuel system, or the use of replacement tires that do not meet the original tire specifications, can cause this light to come on. This could lead to costly repairs not covered by the vehicle warranty. This could also affect the vehicle's ability to pass an Emissions Inspection/Maintenance test. See *Accessories and Modifications* ⇨ *289*.

If the light is flashing : A malfunction has been detected that could damage the emission control system and increase vehicle emissions. Diagnosis and service may be required.

To help prevent damage, reduce vehicle speed and avoid hard accelerations and uphill grades. If towing a trailer, reduce the amount of cargo being hauled as soon as possible.

If the light continues to flash, find a safe place to park. Turn the vehicle off and wait at least 10 seconds before restarting the engine. If the light is still flashing, follow the previous guidelines and see your dealer for service as soon as possible.

If the light is on steady : A malfunction has been detected. Diagnosis and service may be required.

Check the following:

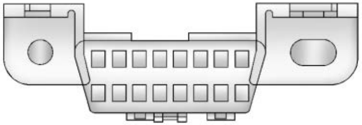
- If fuel has been added to the vehicle using the capless fuel funnel adapter, make sure that it has been removed. See “Filling the Tank with a Portable Gas Can” under *Filling the Tank* ⇨ *273*. The diagnostic system can detect if the adapter has been left installed in the vehicle, allowing fuel to evaporate into the atmosphere. A few driving trips with the adapter removed may turn off the light.

- Poor fuel quality can cause inefficient engine operation and poor driveability, which may go away once the engine is warmed up. If this occurs, change the fuel brand. It may require at least one full tank of the proper fuel to turn the light off. See *Recommended Fuel (3.6L V6 Engine)* ⇨ *272* or *Recommended Fuel (2.0L L4 Engine)* ⇨ *272*.

If the light remains on, see your dealer.

Emissions Inspection and Maintenance Programs

If the vehicle requires an Emissions Inspection/Maintenance test, the test equipment will likely connect to the vehicle's Data Link Connector (DLC).



The DLC is under the instrument panel to the left of the steering wheel. Connecting devices that are not used to perform an Emissions Inspection/Maintenance test or to service the vehicle may affect vehicle operation. See *Add-On Electrical Equipment* ⇨ *286*. See your dealer if assistance is needed.

The vehicle may not pass inspection if:

- The light is on when the engine is running.
- The light does not come on when the ignition is in Service Mode.
- Critical emission control systems have not been completely diagnosed. If this happens, the vehicle would not be ready for inspection and might require several days of routine driving before the system is ready for inspection. This can happen if the 12-volt battery has recently been replaced or run down, or if the vehicle has been recently serviced.

See your dealer if the vehicle will not pass or cannot be made ready for the test.

Brake System Warning Light

The vehicle brake system consists of two hydraulic circuits. If one circuit is not working, the remaining circuit can still work to stop the vehicle. For normal braking performance, both circuits need to be working.

If the warning light comes on, there is a brake problem. Have the brake system inspected right away.

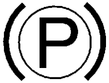
Metric **English**

This light should come on briefly when the engine is started. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

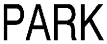
If the light comes on and stays on, there is a brake problem.

> **⚠ Warning**
>
> The brake system might not be working properly if the brake system warning light is on. Driving with the brake system warning light on can lead to a crash. If the light is still on after the vehicle has been pulled off the road and carefully stopped, have the vehicle towed for service.

Electric Parking Brake Light



Metric

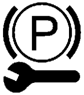


English

This light comes on when the parking brake is applied. If the light continues flashing after the parking brake is released, or while driving, there is a problem with the Electric Parking Brake system. A message may also display in the Driver Information Center (DIC).

If the light does not come on, or remains flashing, see your dealer.

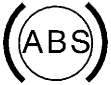
Service Electric Parking Brake Light



This light should come on briefly when starting the vehicle. If it does not come on, have it fixed so it will be ready to warn if there is a problem.

If this light stays on, take the vehicle to your dealer as soon as possible. See the information for the Electric Parking Brake under *Electric Parking Brake* ⇨ *238*. A message may also display in the Driver Information Center (DIC).

Antilock Brake System (ABS) Warning Light



This light comes on briefly when the engine is started.

If the light does not come on, have it fixed so it will be ready to warn if there is a problem.

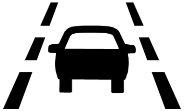
If the light comes on while driving, stop as soon as it is safely possible and turn off the vehicle. Then start the engine again to reset the system. If the ABS light stays on, or comes on again while driving, the vehicle needs service. A chime may also sound when the light comes on steady.

If the ABS light is the only light on, the vehicle has regular brakes, but the antilock brakes are not functioning.

If both the ABS and the brake system warning light are on, the vehicle's antilock brakes are not functioning and there is a problem with the regular brakes. See your dealer for service.

See *Brake System Warning Light* ⇨ *144*.

Lane Keep Assist (LKA) Light



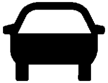
If equipped, this light is green if LKA is available to assist.

LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking without using the turn signal in that direction. The LKA light will turn amber.

This light is amber and flashes as a Lane Departure Warning (LDW) alert, to indicate that the lane marking has been crossed.

See *Lane Keep Assist (LKA)* ⇨ *269*.

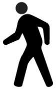
Vehicle Ahead Indicator



If equipped, this indicator will display green when a vehicle is detected ahead and amber when you are following a vehicle ahead much too closely.

See *Forward Collision Alert (FCA) System* ⇨ *261*.

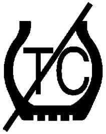
Pedestrian Ahead Indicator



If equipped, this indicator will display amber when a nearby pedestrian is detected directly in front of the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ *265*.

Traction Off Light



This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer. If the system is working normally, the indicator light then turns off.

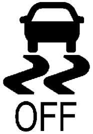
The traction off light comes on when the Traction Control System (TCS) has been turned off by pressing and releasing the TCS/StabiliTrak/ Electronic Stability Control (ESC) button.

This light and the StabiliTrak OFF light come on when StabiliTrak/ESC is turned off.

If the TCS is off, wheel speed will be limited when necessary to protect the driveline from damage. Adjust driving accordingly.

See *Traction Control/Electronic Stability Control* ⇨ *241*.

StabiliTrak OFF Light



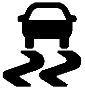
This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer.

This light comes on when the StabiliTrak/Electronic Stability Control (ESC) system is turned off. If StabiliTrak/ESC is off, the Traction Control System (TCS) is also off.

If StabiliTrak/ESC and TCS are off, the system does not assist in controlling the vehicle. Turn on the TCS and the StabiliTrak/ESC systems, and the warning light turns off.

See *Traction Control/Electronic Stability Control* ⇨ *241*.

Traction Control System (TCS)/StabiliTrak Light



This light comes on briefly when the engine is started.

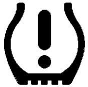
If the light does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light is on and not flashing, the TCS and potentially the StabiliTrak/ ESC system have been disabled. A Driver Information Center (DIC) message may display. Check the DIC messages to determine which feature(s) is no longer functioning and whether the vehicle requires service.

If the light is on and flashing, the TCS and/or the StabiliTrak/ESC system is actively working.

See *Traction Control/Electronic Stability Control* ⇨ *241*.

Tire Pressure Light



For vehicles with the Tire Pressure Monitor System (TPMS), this light comes on briefly when the engine is started. It provides information about tire pressures and the TPMS.

When the Light Is On Steady

This indicates that one or more of the tires are significantly underinflated.

A Driver Information Center (DIC) tire pressure message may also display. Stop as soon as possible, and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure ⇨ 331*.

When the Light Flashes First and Then Is On Steady

If the light flashes for about a minute and then stays on, there may be a problem with the TPMS. If the problem is not corrected, the light will come on at every ignition cycle. See *Tire Pressure Monitor Operation ⇨ 334*.

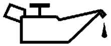
Engine Oil Pressure Light

Oil pressure can vary with engine speed, outside temperature, and oil viscosity.

On some models, the oil pump will vary engine oil pressure according to engine needs. Oil pressure may change quickly as the engine speed or load varies. This is normal. If the oil pressure warning light or Driver Information Center (DIC) message indicates oil pressure outside the normal operating range, check the vehicle's oil as soon as possible.

Caution

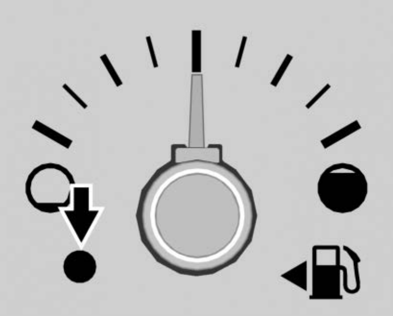
Lack of proper engine oil maintenance can damage the engine. Driving with the engine oil low can also damage the engine. The repairs would not be covered by the vehicle warranty. Check the oil level as soon as possible. Add oil if required, but if the oil level is within the operating range and the oil pressure is still low, have the vehicle serviced. Always follow the maintenance schedule for changing engine oil.



This light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer.

If the light comes on and stays on, it means that oil is not flowing through the engine properly. The vehicle could be low on oil and might have some other system problem. See your dealer.

Low Fuel Warning Light (Base Level)

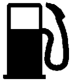


Metric Shown, English Similar

This light comes on for a few seconds when the ignition is turned on as a check to indicate it is working. If it does not come on, have it fixed.

The low fuel warning light comes on and a chime sounds when the vehicle is low on fuel. The light turns off when fuel is added to the fuel tank.

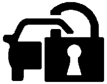
Low Fuel Warning Light (Uplevel)



This light is near the fuel gauge and comes on briefly when the ignition is turned on as a check to show it is working.

It also comes on when the fuel tank is low on fuel. The light turns off when fuel is added. If it does not, have the vehicle serviced.

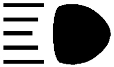
Security Light



The security light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

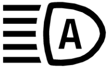
If the light stays on and the engine does not start, there could be a problem with the theft-deterrent system. See *Immobilizer Operation* ⇨ *51*.

High-Beam On Light



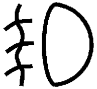
This light comes on when the high-beam headlamps are in use. See *Headlamp High/Low-Beam Changer* ⇨ *169*.

IntelliBeam Light



This light comes on when the IntelliBeam system, if equipped, is enabled. See *Exterior Lamp Controls* ⇨ *167*.

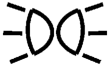
Front Fog Lamp Light



The fog lamp light comes on when the fog lamps are in use.

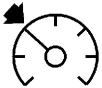
The light goes out when the fog lamps are turned off. See *Fog Lamps* ⇨ *172* for more information.

Lamps On Reminder



This light comes on when the exterior lamps are in use. See *Exterior Lamp Controls* ⇨ *167*.

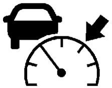
Cruise Control Light



The cruise control light is white when the cruise control is on and ready, and turns green when the cruise control is set and active.

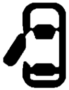
See *Cruise Control* ⇨ *246*.

Adaptive Cruise Control Light



This light is white when the Adaptive Cruise Control (ACC, if equipped) is on and ready, and turns green when the ACC is set and active. See *Adaptive Cruise Control* ⇨ *248*.

Door Ajar Light

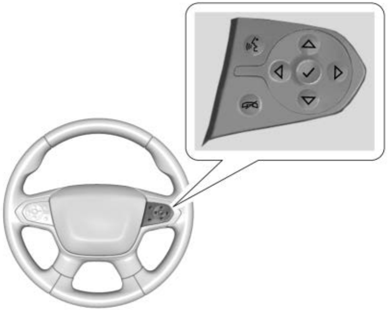


This light comes on when a door is open or not securely latched. Before driving, check that all doors are properly closed.

Information Displays

Driver Information Center (DIC)

The DIC displays are shown in the center of the instrument cluster in the Info app. See *Instrument Cluster ⇨ 135*. The displays show the status of many vehicle systems. The controls for the DIC are on the right steering wheel control.



△ or ▽ : Press to move up or down in a list.

◁ or ▷ : Press to move between the interactive display zones in the cluster.

✓ : Press to open a menu or select a menu item. Press and hold to reset values on certain screens.

DIC Info Page Options

The info pages on the DIC can be turned on or off through the Options menu.

1. Press ◁ to access the cluster applications.
2. Press △ or ▽ to scroll to the Options application.
3. Press ✓ to enter the Options menu.
4. Scroll to Info Pages and press ▷.
5. Press △ or ▽ to move through the list of possible information displays.

6. Press ✓ while an item is highlighted to select or deselect that item. When an item is selected, a checkmark will appear next to it.

DIC Info Pages

The following is the list of all possible DIC info page displays. Some may not be available for your particular vehicle. Some items may not be turned on by default but can be turned on through the Options app. See “DIC Info Page Options” earlier in this section.

Speed : Shows the vehicle speed in either kilometers per hour (km/h) or miles per hour (mph). If equipped, press ▷ to open the menu and select to display speed limit signs.

Trip A or Trip B : Shows the current distance traveled, in either kilometers (km) or miles (mi), since the trip odometer was last reset.

This also shows the approximate average liters per 100 kilometers (L/100 km) or miles per gallon (mpg). This number is calculated based on the number of L/100 km (mpg) recorded since the last time this menu item was reset. This number reflects only the approximate average fuel economy that the vehicle has right now, and will change as driving conditions change.

Press and hold ✓ while this display is active to reset the trip odometer and the average fuel economy. Trip A and Trip B can also be reset by pressing ▷ and choosing reset.

Fuel Range : Shows the approximate distance the vehicle can be driven without refueling. LOW will be displayed when the vehicle is low on fuel. The fuel range estimate is based on an average of the vehicle's fuel economy over recent driving history and the amount of fuel remaining in the fuel tank.

Follow Distance : If equipped, the current follow time to the vehicle ahead is displayed as a time value on this page.

Remaining Oil Life : Shows an estimate of the oil's remaining useful life. If REMAINING OIL LIFE 99% is displayed, that means 99% of the current oil life remains.

When the remaining oil life is low, the CHANGE ENGINE OIL SOON message will appear on the display. The oil should be changed as soon as possible. See *Engine Oil* ⇨ *294*. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended in the Maintenance Schedule. See *Maintenance Schedule* ⇨ *371*.

The Oil Life display must be reset after each oil change. It will not reset itself. Do not to reset the Oil Life display at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. To reset the engine oil life system, press and hold ✓ for several seconds while the Oil Life display is active. See *Engine Oil Life System* ⇨ *296*.

Tire Pressure : Shows the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ *333* and *Tire Pressure Monitor Operation* ⇨ *334*.

Instantaneous Fuel Economy : Displays the current fuel economy in liters per 100 kilometers (L/100 km) or miles per gallon (mpg). This number reflects only the approximate fuel economy that the vehicle has right now and changes frequently as driving conditions change. This display cannot be reset.

Average Vehicle Speed : Displays the average vehicle speed of the vehicle in kilometers per hour (km/h) or miles per hour (mph). This average is based on the various vehicle speeds recorded since the last reset. Reset the average speed by pressing ✓ when it is displayed.

Fuel Economy : The center displays the approximate instantaneous fuel economy as a number and bar graph. Displayed above the bar graph is a running average of fuel economy for the most recently traveled selected distance. Displayed below the bar graph is the best average fuel economy that has been achieved for the selected distance. The selected distance is displayed at the top of the page as “last xxx mi/km.”

Press ▷ to select the distance or reset best value. Use △ and ▽ to choose the distance and press ✓. Press △ and ▽ to select “Reset Best Score.” Press ✓ to reset the best average fuel economy. After reset, the best value displays “-,-” until the selected distance has been traveled.

The display provides information on how current driving behavior affects the running average and how well recent driving compares to the best that has been achieved for the selected distance.

Timer : This display can be used as a timer. To start the timer, press ✓ while this display is active. The display will show the amount of time that has passed since the timer was last reset. To stop the timer, press ✓ briefly while this display is active and the timer is running. To reset the timer to zero, press and hold ✓ while this display is active, or press ▷ and select reset.

Battery Voltage : Displays the current battery voltage, if equipped. Battery voltage changes are normal while driving. See *Charging System Light* ⇨ *142*. If there is a problem with the battery charging system, the DIC will display a message.

Transmission Fluid Temperature : Shows the temperature of the automatic transmission fluid in either degrees Celsius (°C) or degrees Fahrenheit (°F).

Off Road Page : This page shows the traction, four wheel drive, and steering angle states. When the front or rear axles are locked, a lock icon is displayed.

Blank Page : Shows no information.

Vehicle Messages

Messages displayed on the DIC indicate the status of the vehicle or some action that may be needed to correct a condition. Multiple messages may appear one after another.

The messages that do not require immediate action can be acknowledged and cleared by pressing ✓. The messages that require immediate action cannot be cleared until that action is performed.

All messages should be taken seriously; clearing the message does not correct the problem.

If a SERVICE message appears, see your dealer.

Follow the instructions given in the messages. The system displays messages regarding the following topics:

- Service Messages
- Fluid Levels
- Vehicle Security
- Brakes
- Steering
- Ride Control Systems
- Driver Assistance Systems
- Cruise Control
- Lighting and Bulb Replacement
- Wiper/Washer Systems
- Doors and Windows
- Seat Belts
- Airbag Systems
- Engine and Transmission
- Tire Pressure
- Battery

Engine Power Messages

ENGINE POWER IS REDUCED

This message displays when the vehicle's propulsion power is reduced. Reduced propulsion power can affect the vehicle's ability to accelerate. If this message is on, but there is no observed reduction in performance, proceed to your destination. The performance may be reduced the next time the vehicle is driven. The vehicle may be driven while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, or displays repeatedly, the vehicle should be taken to your dealer for service as soon as possible.

Vehicle Speed Messages

SPEED LIMITED TO XXX KM/H (MPH)

This message shows that the vehicle speed has been limited to the speed displayed. The limited speed is a protection for various propulsion and vehicle systems, such as lubrication, thermal, suspension, Teen Driver if equipped, or tires.

Vehicle Personalization

Use the audio system controls to access the personalization menus for customizing vehicle features.

The following are all possible personalization features. Depending on the vehicle, some may not be available.

Base Radio Audio System Controls

⌂ : Press to access the Home Page Menu.

▲ or ▼ : Touch to scroll through the menus or setup items.

⮌ : Touch to exit or return to the previous screen or menu.

Uplevel Radio Audio System Controls

1. Touch the desired feature to display a list of available options.
2. Touch to select the desired feature setting.
3. Touch the back icon on the infotainment display to return to the previous menu or exit.

Personalization Menus

The following list of menu items may be available:

- Time and Date
- Rear Seat Reminder
- Language
- Valet Mode
- Teen Driver
- Radio
- Vehicle
- Bluetooth
- Apple CarPlay
- Android Auto
- USB Auto Launch
- Voice
- Display
- Rear Camera
- Return to Factory Settings
- Software Information

- Wi-Fi

Each menu is detailed in the following information.

Time and Date

Manually set the time and date. See *Clock* ⇨ *129*.

Rear Seat Reminder

This allows for a chime and a message when the rear door has been opened before or during operation of the vehicle. See *Rear Seats* ⇨ *70*.

Select Off or On.

Language

Select Language, then select from the available language(s).

The selected language will display on the system, and voice recognition will reflect the selected language.

Valet Mode

This will lock the infotainment system and steering wheel controls. It may also limit access to vehicle storage locations (if equipped).

To enable valet mode:

1. Enter a four-digit code on the keypad.
2. Select Enter to go to the confirmation screen.
3. Re-enter the four-digit code.

Touch Lock or Unlock to lock or unlock the system. Touch Back to go back to the previous menu.

Teen Driver

See “Teen Driver” under “Settings” in the infotainment manual.

Radio

Touch and the following may display:

- Manage Favorites
- Number of Favorites Shown
- Audible Touch Feedback
- Auto Volume
- Maximum Startup Volume

Manage Favorites

This allows favorites to be edited. See “Manage Favorites” in “Settings” under “Radio” in the infotainment manual.

Number of Favorites Shown

Touch to set the number of favorites to display.

Select the desired number or select Auto and the infotainment system will automatically adjust the number of favorites shown.

Audible Touch Feedback

This allows Audible Touch Feedback to be turned on or off.

Select Off or On.

Auto Volume

This feature adjusts the volume based on vehicle speed and ambient noise.

Select Off, Low, Medium-Low, Medium, Medium-High, or High.

Maximum Startup Volume

This feature sets the maximum startup volume. If the vehicle is started and the volume is greater than this level, the volume is adjusted to this level.

To set the maximum startup volume, touch + or − to increase or decrease.

Vehicle

Select and the following may display:

- Climate and Air Quality
- Collision/Detection Systems
- Comfort and Convenience
- Lighting
- Power Door Locks
- Remote Lock, Unlock, Start

Climate and Air Quality

Select and the following may display:

- Auto Fan Speed
- Auto Cooled Seats
- Auto Heated Seats
- Auto Defog
- Auto Rear Defog

Auto Fan Speed

This setting specifies the amount of airflow when the climate control fan setting is Auto Fan.

Select Low, Medium, or High.

Auto Cooled Seats

When enabled, this feature will automatically activate ventilated seats at the level required by the interior temperature. See *Heated and Ventilated Front Seats ⇨ 69*.

Select Off or On.

Auto Heated Seats

When enabled, this feature will automatically activate the heated seats at the level required by the interior temperature. The auto heated seats can be turned off by using the heated seat buttons on the center stack. See *Heated and Ventilated Front Seats ⇨ 69*.

If equipped with Auto Heated Steering Wheel, this feature will turn on when the Auto Heated Seats turn on.

Select Off or On.

Auto Defog

When set to On, the front defog will automatically react to temperature and humidity conditions that may cause fogging.

Select Off or On.

Auto Rear Defog

If equipped, this allows the Auto Rear Defog to be turned on or off. This feature will automatically turn on the rear window defogger when it is cold outside.

Select Off or On.

Collision/Detection Systems

Select the Collision/Detection Systems menu and the following may be displayed if equipped:

- Forward Collision System
- Front Pedestrian Detection

- Park Assist
- Rear Cross Traffic Alert
- Adaptive Cruise Go Notifier
- Lane Change Alert

Forward Collision System

This feature will turn on or off the Forward Collision Alert (FCA) and Forward Automatic Braking (FAB). The Off setting disables all FCA and FAB functions. With the Alert and Brake setting, both FCA and FAB are available. The Alert setting disables FAB. See *Forward Automatic Braking (FAB)* ⇨ *263*.

Select Off, Alert, or Alert and Brake.

Front Pedestrian Detection

This feature may help avoid or reduce the harm caused by front-end crashes with nearby pedestrians.

See *Front Pedestrian Braking (FPB) System* ⇨ *265*.

Select Off, Alert, or Alert and Brake.

Park Assist

If equipped, this allows the feature to be turned on or off. See *Assistance Systems for Parking or Backing* ⇨ *258*.

Select Off or On.

Rear Cross Traffic Alert

This allows the Rear Cross Traffic Alert feature to be turned on or off.

Select Off or On.

Adaptive Cruise Go Notifier

This feature will give a reminder that Adaptive Cruise Control provides when it has brought the vehicle to a complete stop behind another stopping vehicle, and then that vehicle drives on.

Select Off or On.

Lane Change Alert

This allows the feature to be turned on or off. See *Lane Change Alert (LCA)* ⇨ *267*.

Select Off or On.

Comfort and Convenience

Select and the following may display:

- Auto Memory Recall
- Easy Exit Options
- Chime Volume
- Hands Free Liftgate Control
- Reverse Tilt Mirror
- Auto Wipe in Reverse Gear
- Extended Hill Start Assist

Auto Memory Recall

This feature automatically recalls the current driver's previously stored 1 or 2 button positions when the ignition is changed from off to on or ACC/ACCESSORY. See *Memory Seats* ⇨ *66*.

Select Off or On.

Easy Exit Options

This feature automatically recalls the previously stored Exit button position when exiting the vehicle. See *Memory Seats* ⇨ *66*.

Select Off or On.

Chime Volume

This allows the selection of the chime volume level.

Touch + or − to adjust the volume.

Hands Free Liftgate Control

The liftgate may be operated with a kicking motion under the left side of the rear bumper. See *Liftgate* ⇨ *43*.

Select Off, On-Open and Close, or On-Open Only.

Reverse Tilt Mirror

When on, the driver and/or passenger mirrors will tilt downward when the vehicle is shifted to R (Reverse) to improve visibility of the ground near the rear wheels. They will return to their previous driving position when the vehicle is shifted out of R (Reverse) or the ignition is turned to off.

Select Off, On - Driver and Passenger, On - Driver, or On - Passenger.

Auto Wipe in Reverse Gear

When on and the front wiper is on, the rear wiper will automatically activate when the vehicle is shifted to R (Reverse).

Select Off or On.

Extended Hill Start Assist

This allows the duration of the Hill Start Assist to be changed.

Select Extended Hold or Standard Hold.

Lighting

Select and the following may display:

- Vehicle Locator Lights
- Exit Lighting

Vehicle Locator Lights

This feature will flash the exterior lamps and allows some of the exterior lamps and most of the interior lamps to turn on briefly when 🔒 on the Remote Keyless Entry (RKE) transmitter is pressed to locate the vehicle.

Select Off or On.

Exit Lighting

This allows the selection of how long the exterior lamps stay on when leaving the vehicle when it is dark outside.

Select Off, 30 Seconds, 60 Seconds, or 120 Seconds.

Power Door Locks

Select and the following may display:

- Unlocked Door Anti-Lockout
- Auto Door Unlock
- Delayed Door Lock

Unlocked Door Anti-Lockout

When on, this feature will keep the driver door from locking when the door is open. If Off is selected, the Delayed Door Lock menu will be available.

Select Off or On.

Auto Door Unlock

This allows selection of which of the doors will automatically unlock when the vehicle is shifted into P (Park).

Select Off, All Doors, or Driver Door.

Delayed Door Lock

When on, this feature will delay the locking of the doors. To override the delay, press the power door lock switch on the door.

Select Off or On.

Remote Lock, Unlock, Start

Select and the following may display:

- Remote Unlock Light Feedback
- Remote Lock Feedback
- Remote Door Unlock
- Remote Start Auto Cool Seats
- Remote Start Auto Heat Seats
- Remote Window Operation
- Passive Door Unlock
- Passive Door Lock
- Remote Left in Vehicle Alert

Remote Unlock Light Feedback

When on, the exterior lamps will flash when unlocking the vehicle with the RKE transmitter.

Select Off or Flash Lights.

Remote Lock Feedback

This allows selection of what type of feedback is given when locking the vehicle with the RKE transmitter.

Select Off, Lights and Horn, Lights Only, or Horn Only.

Remote Door Unlock

This allows selection of which doors will unlock when pressing 🔓 on the RKE transmitter.

Select All Doors or Driver Door.

Remote Start Auto Cool Seats

This setting automatically turns on the ventilated seats when using the remote start function on warm days.

Select Off or On.

Remote Start Auto Heat Seats

This setting automatically turns on the heated seats when using the remote start function on cold days.

If equipped with Remote Start Heated Steering Wheel, this feature will turn on when the Remote Start Auto Heated Seats turn on.

Select Off or On.

Remote Window Operation

If equipped, this feature enables the remote operation of all windows from the RKE transmitter. See "Remote Window Operation" in *Power Windows* ⇨ *56*.

Select Off or On.

Passive Door Unlock

This allows the selection of what doors will unlock when using the button on the driver door to unlock the vehicle.

Select All Doors or Driver Door.

Passive Door Lock

This allows passive locking to be turned on or off and selects feedback. See *Remote Keyless Entry (RKE) System Operation ⇨ 30*.

Select Off, On with Horn Chirp, or On.

Remote Left in Vehicle Alert

This feature sounds an alert when the RKE transmitter is left in the vehicle. This menu also enables Remote No Longer In Vehicle Alert.

Select Off or On.

Bluetooth

Select and the following may display:

- Device Information
- Pair New Device
- Device Management
- Change Pairing PIN
- Ringtones
- Sort Order
- Voice Mail Numbers
- Text Message Alerts

Device Information

See information about the device name, address, and PIN code.

Pair New Device

Select to pair a new device. See “Pairing” in “Infotainment Controls” under “Bluetooth” in the infotainment manual.

Device Management

Select to connect to a different phone source, disconnect a phone, or delete a phone.

Change Pairing PIN

Select to change the PIN of a device.

Ringtones

Touch to change the ring tone for the specific phone. The phone does not need to be connected to change the ring tone.

Sort Order

Select to change the order of the contacts list.

Select First/Last or Last/First.

Voice Mail Numbers

This feature displays the voice mail number for all connected phones. To change the voice mail number, select EDIT. Type a new number, then select Save.

Text Message Alerts

This allows the feature to be turned on or off.

Select Off or On.

Apple CarPlay

Select and the following may display:

- Apple CarPlay
- Manage Apple CarPlay Devices

Apple CarPlay

This feature allows Apple devices to be connected to the infotainment system through a USB port.

Select Off or On.

Manage Apple CarPlay Devices

Select to manage Apple devices. Apple CarPlay must be on for this feature to be accessed.

Android Auto

Select and the following may display:

- Android Auto
- Manage Android Auto Devices

Android Auto

This feature allows Android devices to be connected to the infotainment system through a USB port.

Select Off or On.

Manage Android Auto Devices

Select to manage Android devices. Android Auto must be on for this feature to be accessed.

USB Auto Launch

This allows Android and Apple CarPlay devices to automatically connect when plugged into the USB port.

Select Off or On.

Voice

Select and the following may display:

- Confidence Threshold
- Prompt Length
- Audio Feedback Speed
- Display “What Can I Say?” Tips

Confidence Threshold

This feature allows the adjustment of the sensitivity of the speech recognition system.

Select Confirm More or Confirm Less.

Prompt Length

This feature adjusts the voice prompt length.

Select Short or Long.

Audio Feedback Speed

This feature adjusts the audio feedback speed.

Select Slow, Medium, or Fast.

Display “What Can I Say?” Tips

This feature gives voice command tips.

Select Off or On.

Display

Select and the following may display:

- Mode
- Calibrate Touchscreen
- Turn Display Off

Mode

Select to change the display screen for day or night driving.

Select Auto, Day, or Night.

Calibrate Touchscreen

Select to calibrate the touchscreen, then follow the prompts.

Turn Display Off

Select to turn the display off. Touch anywhere on the infotainment display area or press any controls on the radio center stack to turn the display on.

Rear Camera

This allows for Rear Park Assist Symbols and Guidance Lines to be turned off or on.

Select Off or On for the desired feature.

See *Assistance Systems for Parking or Backing* ⇨ *258*.

Return to Factory Settings

Select and the following may display:

- Restore Vehicle Settings
- Clear All Private Data
- Restore Radio Settings

Restore Vehicle Settings

This allows selection of restoring vehicle settings.

Select Restore or Cancel.

Clear All Private Data

This allows selection to clear all private information from the vehicle.

Select Delete or Cancel.

Restore Radio Settings

This allows selection to restore radio settings.

Select Restore or Cancel.

Software Information

Touch to view or update the version of the infotainment system software.

Wi-Fi

Select and the following may display:

- Wi-Fi
- Manage Wi-Fi Networks

Wi-Fi

This feature allows Wi-Fi networks to be turned of or on.

Select Off or On.

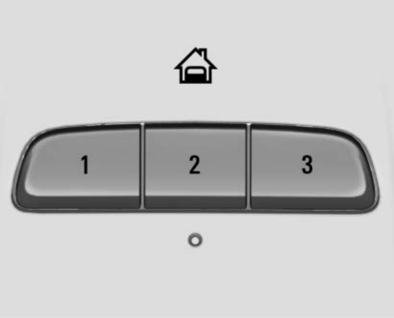
Manage Wi-Fi Networks

Select to manage Wi-Fi networks. Wi-Fi must be on for this feature to be accessed.

Universal Remote System

See *Radio Frequency Statement* ⇨ *397*.

Universal Remote System Programming



If equipped, these buttons are in the overhead console.

This system can replace up to three remote control transmitters used to activate devices such as garage door openers, security systems, and home automation devices. These instructions refer to a garage door opener, but can be used for other devices.

Do not use the Universal Remote system with any garage door opener that does not have the stop and reverse feature. This includes any garage door opener model manufactured before April 1, 1982.

Read these instructions completely before programming the Universal Remote system. It may help to have another person assist with the programming process.

Keep the original hand-held transmitter for use in other vehicles as well as for future programming. Erase the programming when vehicle ownership is terminated. See “Erasing Universal Remote System Buttons” later in this section.

To program a garage door opener, park outside directly in line with and facing the garage door opener receiver. Clear all people and objects near the garage door.

Make sure the hand-held transmitter has a new battery for quicker and more accurate transmission of the radio-frequency signal.

Programming the Universal Remote System

For questions or programming help, see www.homelink.com/gm or call 1-800-355-3515. For calls placed outside the U.S.A, Canada, or Puerto Rico, international rates will apply and may differ based on landline or mobile phone.

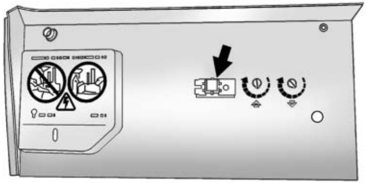
Programming involves time-sensitive actions, and may time out causing the procedure to be repeated.

To program up to three devices:

1. Hold the end of the hand-held transmitter about 3 to 8 cm (1 to 3 in) away from the Universal Remote system buttons with the indicator light in view. The hand-held transmitter was supplied by the manufacturer of the garage door opener receiver.
2. At the same time, press and hold both the hand-held transmitter button and one of the three Universal Remote system buttons to be used to operate the garage door. Do not release either button until the indicator light changes from a slow to a rapid flash. Then release both buttons.

   Some garage door openers may require substitution of Step 2 with the procedure under “Radio Signals for Some Gate Operators” later in this section.
3. Press and hold the newly programmed Universal Remote system button for five seconds while watching the indicator light and garage door activation.
   - If the indicator light stays on continuously or the garage door moves when the button is pressed, then programming is complete. There is no need to complete Steps 4–6.

- If the indicator light does not come on or the garage door does not move, a second button press may be required. For a second time, press and hold the newly programmed button for five seconds. If the light stays on or the garage door moves, programming is complete.
- If the indicator light blinks rapidly for two seconds, then changes to a solid light and the garage door does not move, continue with programming Steps 4–6.



Learn or Smart Button

4. After completing Steps 1–3, locate the Learn or Smart button inside the garage on the garage door opener receiver. The name and color of the button may vary by manufacturer.
5. Press and release the Learn or Smart button. Step 6 must be completed within 30 seconds of pressing this button.
6. Inside the vehicle, press and hold the newly programmed Universal Remote system button for two seconds, then release it. If the garage door does not move or the lamp on the garage door opener receiver does not flash, press and hold the same button a second time for two seconds, then release it. Again, if the door does not move or the garage door lamp does not flash, press and hold the same button a third time for two seconds, then release it.

The Universal Remote system should now activate the garage door.

Repeat the process for programming the two remaining buttons.

Radio Signals for Some Gate Operators

For questions or programming help, see www.homelink.com/gm or call 1-800-355-3515. For calls placed outside the U.S.A, Canada, or Puerto Rico, international rates will apply and may differ based on landline or mobile phone.

Some radio-frequency laws and gate operators require transmitter signals to time out or quit after several seconds of transmission. This may not be long enough for the Universal Remote system to pick up the signal during programming.

If the programming did not work, replace Step 2 under “Programming the Universal Remote System” with the following:

Press and hold the Universal Remote system button while pressing and releasing the hand-held transmitter button every two seconds until the signal has been successfully accepted by the Universal Remote system. The Universal Remote system indicator light will flash slowly at first and then rapidly. Proceed with Step 3 under “Programming the Universal Remote System” to complete.

Universal Remote System Operation

Using the Universal Remote System

Press and hold the appropriate Universal Remote system button for at least one-half second. The indicator light will come on while the signal is being transmitted.

Erasing Universal Remote System Buttons

Erase all programmed buttons when vehicle ownership is terminated.

To erase:

1. Press and hold the two outside buttons until the indicator light begins to flash. This should take about 10 seconds.
2. Release both buttons.

Reprogramming a Single Universal Remote System Button

To reprogram any of the system buttons:

1. Press and hold any one of the buttons. Do not release the button.
2. The indicator light will begin to flash after 20 seconds. Without releasing the button, proceed with Step 1 under “Programming the Universal Remote System.”

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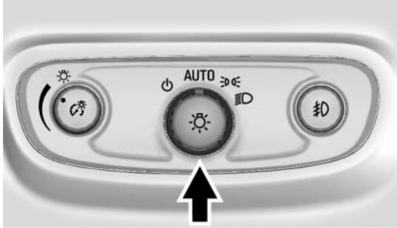
Exterior Lighting

Exterior Lamp Controls



The exterior lamp control is on the instrument panel to the left of the steering column.

There are four positions.

⏻ : Turns the exterior lamps off and deactivates the AUTO mode. Turn to ⏻ again to reactivate the AUTO mode.

In Canada, the headlamps will automatically reactivate when the vehicle is shifted out of P (Park).

AUTO : Turns the exterior lamps on and off automatically depending on outside lighting.

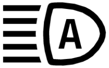
≡00≡ : Turns on the parking lamps including all lamps, except the headlamps.

≣D : Turns on the headlamps together with the parking lamps and instrument panel lights.

IntelliBeam® System

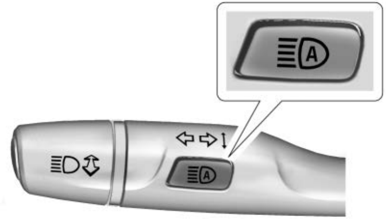
If equipped, this system turns the vehicle's high-beam headlamps on and off according to surrounding traffic conditions.

The system turns the high-beam headlamps on when it is dark enough and there is no other traffic present.



This light comes on in the instrument cluster when the IntelliBeam system is enabled.

Turning On and Enabling IntelliBeam



To enable the IntelliBeam system, press ≣Ⓐ on the turn signal lever when it is dark outside and the exterior lamp control is in AUTO or ≣D. The blue high-beam on light appears on the instrument cluster when the high beams are on.

Driving with IntelliBeam

The system only activates the high beams when driving over 40 km/h (25 mph).

There is a sensor near the top center of the windshield that automatically controls the system. Keep this area of the windshield clear of debris to allow for best system performance.

The high-beam headlamps remain on, under the automatic control, until one of the following situations occurs:

- The system detects an approaching vehicle's headlamps.
- The system detects a preceding vehicle's taillamps.
- The outside light is bright enough that high-beam headlamps are not required.
- The vehicle's speed drops below 20 km/h (12 mph).
- The IntelliBeam system is disabled by the button on the turn signal lever. If this happens, press ≣Ⓐ on the turn signal lever when the exterior lamp control is in the AUTO or ≣D position to reactivate the IntelliBeam system. The instrument cluster

light will come on to indicate the IntelliBeam system is reactivated.

- The IntelliBeam system will turn off if the fog lamps are turned on.

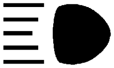
The high beams may not turn off automatically if the system cannot detect another vehicle's lamps because of any of the following:

- The other vehicle's lamps are missing, damaged, obstructed from view, or otherwise undetected.
- The other vehicle's lamps are covered with dirt, snow, and/or road spray.
- The other vehicle's lamps cannot be detected due to dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.
- The vehicle's windshield is dirty, cracked, or obstructed by something that blocks the view of the light sensor.
- The vehicle is loaded such that the front end points upward, causing the light sensor to aim high and not detect headlamps and taillamps.
- The vehicle is being driven on winding or hilly roads.

The IntelliBeam system may need to be disabled if any of the above conditions exist.

Headlamp High/Low-Beam Changer

Push the turn signal lever away from you and release, to turn the high beams on. To return to low beams, push the lever again or pull it toward you and release.



This indicator light turns on in the instrument cluster when the high-beam headlamps are on.

Flash-to-Pass

This feature is used to signal to the vehicle ahead that you want to pass.

If the headlamps are off or in the low-beam position, pull the turn signal lever toward you to momentarily switch to high beams.

Release the lever to turn the high-beam headlamps off.

Daytime Running Lamps (DRL)

DRL can make it easier for others to see the front of your vehicle during the day. Fully functional DRL are required on all vehicles first sold in Canada.

The dedicated DRL will come on when all of the following conditions are met:

- The ignition is on.
- The exterior lamp control is in AUTO.

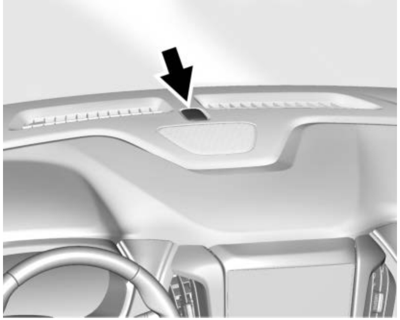
- The light sensor determines it is daytime.
- The vehicle is not parked.

The taillamps, instrument panel lights, and other lamps will not be on.

The DRL turn off when the headlamps are turned to ⏻ or the ignition is off. For vehicles sold in Canada, this control only works when the vehicle is parked.

Automatic Headlamp System

When the exterior lamp control is set to AUTO and it is dark enough outside, the headlamps come on automatically.



There is a light sensor on top of the instrument panel. Do not cover the sensor; otherwise the headlamps will come on when they are not needed.

The system may also turn on the headlamps when driving through a parking garage or tunnel.

If the vehicle is started in a dark garage, the automatic headlamp system comes on immediately. If it is light outside when the vehicle leaves the garage, there is a slight delay before the automatic headlamp system changes to the Daytime Running Lamps (DRL). During that delay, the instrument cluster may not be as bright as usual. Make sure the instrument panel brightness control is in the full bright position. See *Instrument Panel Illumination Control* ⇨ *172*.

When it is bright enough outside, the headlamps will turn off or may change to DRL.

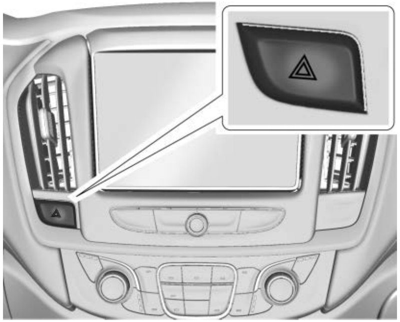
The automatic headlamp system turns off when the exterior lamp control is turned to ⏻ or the ignition is off.

Lights On with Wipers

If the windshield wipers are activated in daylight with the engine on, and the exterior lamp control is in AUTO, the headlamps, parking lamps, and other exterior lamps come on. The transition time for the lamps coming on varies based on wiper speed. When the wipers are not operating, these lamps turn off.

Move the exterior lamp control to ⏻ or ⁼00⁼ to disable this feature.

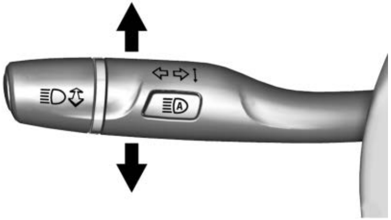
Hazard Warning Flashers



⚠ : Press to make the front and rear turn signal lamps flash on and off. This warns others that you are having trouble.

Press ⚠ again to turn the flashers off.

Turn and Lane-Change Signals



Move the lever all the way up or down to signal a turn.

An arrow on the instrument cluster will flash in the direction of the turn or lane change.

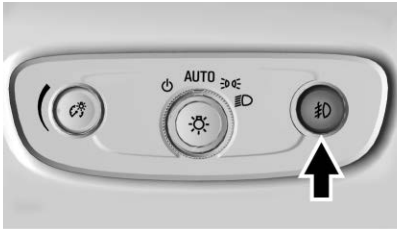
Raise or lower the lever until the arrow starts to flash to signal a lane change. Hold it there until the lane change is complete. If the lever is moved momentarily to the lane change position, the arrow will flash three times. It will flash six times if Tow/Haul Mode is active.

The lever returns to its starting position when it is released.

If after signaling a turn or lane change, the arrow flashes rapidly or does not come on, a signal bulb may be burned out.

Have any burned out bulbs replaced. If a bulb is not burned out, check the fuse. See *Instrument Panel Fuse Block* ⇨ *319*.

Fog Lamps



The fog lamps button is on the instrument panel beside the steering wheel.

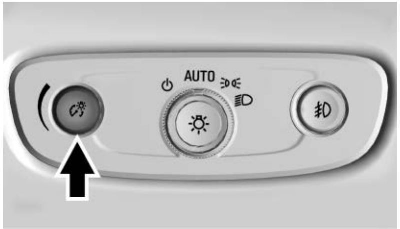
To turn on the fog lamps, the ignition and the headlamps or parking lamps must be on.

‡D : If equipped, press to turn on or off. An indicator light on the instrument cluster comes on when the fog lamps are on.

Some localities have laws that require the headlamps to be on along with the fog lamps.

Interior Lighting

Instrument Panel Illumination Control



The brightness of the instrument cluster display, infotainment display and controls, steering wheel controls, and all other illuminated controls, as well as feature status indicators can be adjusted.

The knob for this feature is on the instrument panel beside the steering column.

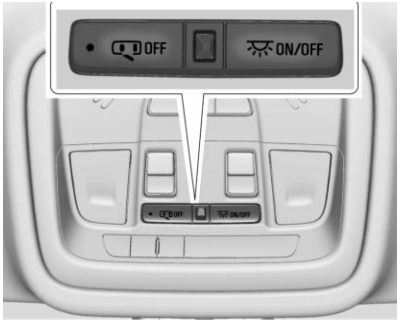
Push the knob in all the way until it extends out and then turn the knob clockwise or counterclockwise to brighten or dim the lights.

Courtesy Lamps

The courtesy lamps come on when any door is opened unless the dome lamp override is activated. To deactivate the dome lamp override, press ⊡ OFF and the indicator light on the button will turn off.

The reading lamps, located on the front overhead console and the headliner above the rear seat passengers, can be controlled independently of the courtesy lamps.

Dome Lamps



The dome lamp controls are in the overhead console.

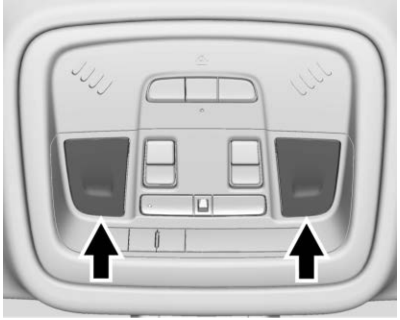
To operate, press the following buttons:

OFF : Press to turn off the dome lamps when a door is open. An indicator light on the button will turn on when the dome lamp override is activated. Press OFF again to deactivate this feature and the indicator light will turn off. The dome lamps will come on when doors are opened.

ON/OFF : Press to turn the dome lamps on manually. Press again to turn the dome lamps off.

Reading Lamps

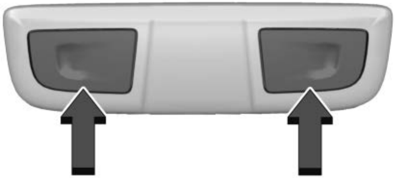
There are reading lamps on the overhead console and over the rear seats. These lamps come on when any door is opened.



Front Reading Lamps

The front reading lamps are in the overhead console.

Press the lamp lenses to turn the front reading lamps on or off.



Rear Reading Lamps

The rear reading lamps are over the rear seats.

Press the lamp lens to turn the rear passenger reading lamps on or off.

Lighting Features

Entry Lighting

Some exterior lamps and most of the interior lights turn on briefly at night, or in areas of limited lighting when 🔓 is pressed on the Remote Keyless Entry (RKE) transmitter. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*. When the driver door is opened, all control lights, Driver Information Center (DIC) lights, and door pocket lights turn on. After about 30 seconds the exterior lamps turn off, then the remaining interior lights dim to off. Entry lighting can be disabled manually by turning the ignition on or to ACC/ACCESSORY, or by pressing 🔒 on the RKE transmitter.

This feature can be changed. See "Vehicle Locator Lights" under *Vehicle Personalization* ⇨ *155*.

Exit Lighting

Some exterior lamps and interior lights come on at night, or in areas with limited lighting, when the driver door is opened after the ignition is turned off. The dome lamp comes on after the ignition is turned off. The exterior lamps and dome lamp remain on for a set amount of time, then automatically turn off.

The exterior lamps turn off immediately by turning the exterior lamp control off.

This feature can be changed. See *Vehicle Personalization* ⇨ *155*.

Battery Load Management

The vehicle has Electric Power Management (EPM) that estimates the battery's temperature and state of charge. It then adjusts the voltage for best performance and extended life of the battery.

When the battery's state of charge is low, the voltage is raised slightly to quickly bring the charge back up. When the state of charge is high, the voltage is lowered slightly to prevent overcharging. If the vehicle has a voltmeter gauge or a voltage display on the Driver Information Center (DIC), you may see the voltage move up or down. This is normal. If there is a problem, an alert will be displayed.

The battery can be discharged at idle if the electrical loads are very high. This is true for all vehicles. This is because the generator (alternator) may not be spinning fast enough at idle to produce all of the power needed for very high electrical loads.

A high electrical load occurs when several of the following are on, such as: headlamps, high beams, rear window defogger, climate control fan at high speed, heated seats, engine cooling fans, trailer loads, and loads plugged into accessory power outlets.

EPM works to prevent excessive discharge of the battery. It does this by balancing the generator's output and the vehicle's electrical needs.

It can increase engine idle speed to generate more power whenever needed. It can temporarily reduce the power demands of some accessories.

Normally, these actions occur in steps or levels, without being noticeable. In rare cases at the highest levels of corrective action, this action may be noticeable to the driver. If so, a DIC battery voltage and charging message displays. It is recommended that the driver reduce the electrical loads as much as possible. See *Driver Information Center (DIC)* ⇨ *151*.

Battery Power Protection

This feature helps prevent the battery from being drained, if the interior courtesy lamps or reading lamps are accidentally left on. If any of these lamps are left on, they automatically turn off after 10 minutes, if the ignition is off. The lamps will not come back on again until one of the following occurs:

- The ignition is turned on.
- The doors are closed and then re-opened.

Exterior Lighting Battery Saver

The exterior lamps turn off about 10 minutes after the ignition is turned off, if the parking lamps or headlamps have been manually left on. This protects against draining the battery. To restart the 10-minute timer, turn the exterior lamp control to the off position and then back to the parking lamp or headlamp position.

To keep the lamps on for more than 10 minutes, the ignition must be on or in ACC/ACCESSORY.

Infotainment System

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Introduction

Infotainment

Base radio information is included in this manual. See the infotainment manual for information on other available infotainment systems.

Read the following pages to become familiar with these features.

⚠ Warning

Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some functions when driving. These functions may gray out when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, and infotainment display controls.
- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command if equipped with Bluetooth phone capability.
- Set up your Bluetooth, CarPlay, or Android Auto device. Some devices will require a series of setup steps to be taken or a default app to be chosen prior to using the feature. Not completing these steps could prevent the feature from functioning properly.

See *Defensive Driving* ⇨ *210*.

To play the infotainment system with the ignition off, see *Retained Accessory Power (RAP)* ⇨ *230*.

Active Noise Cancellation (ANC)

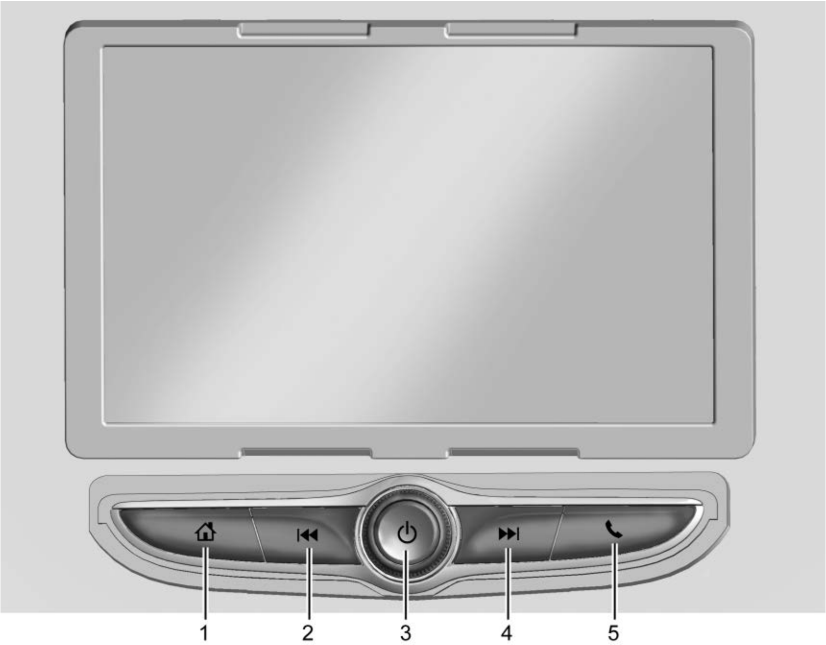
If equipped, ANC reduces engine noise in the vehicle's interior. ANC requires the factory-installed audio system, radio, speakers, amplifier (if equipped), induction system, and exhaust system to work properly. Deactivation is required by your dealer if related aftermarket equipment is installed.

Theft-Deterrent Feature

The infotainment system has an electronic security system installed to prevent theft.

The infotainment system only works in the vehicle in which it was first installed, and cannot be used in another vehicle.

Overview



1. ⌂
   - Press to go to the Home Page. See *Home Page* ⇨ *179*. Press and hold to access Projection supported devices when connected.
2. ⏮
   - Radio: Press and release to go to the previous station or channel. Press and hold to fast seek the previous strongest station or channel.
   - USB/Bluetooth Music/ Pictures: Press to go to the previous content. Press and hold to fast rewind.
3. ⏻
   - Press to turn the power on.
   - Press and hold to turn the power off.
   - Press to mute/unmute the system when on.

- Turn to decrease or increase the volume.

4. ⏭
   - Radio: Press and release to go to the next strongest station or channel. Press and hold to fast seek the next strongest station or channel.
   - USB/Bluetooth Music/Pictures: Press to go to the next content. Press and hold to fast forward.

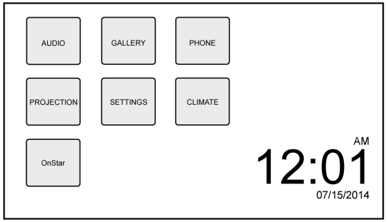
5. ☎
   - Press and release to access the phone screen, answer an incoming call, or access the device home screen.

Home Page

Infotainment Display Controls

Controls show on the infotainment display when available. When a function is unavailable, the item may gray out. When a function is selected, the item may highlight. Press and hold to rearrange icons on the screen.

Home Page Features



Press ⌂ to go to the Home Page.

Audio : Touch to select AM, FM, SiriusXM (if equipped), USB/iPod/Bluetooth Audio, or AUX.

Gallery : Touch to view a picture.

Phone : Touch to activate the phone features (if equipped). Press and hold to start a Voice session with a paired device. See *Bluetooth (Overview)* ⇨ *192* or *Bluetooth (Infotainment Controls)* ⇨ *193*.

Projection : Touch to access supported devices when connected. See *USB Port* ⇨ *185*.

Settings : Touch to access the Personalization menu. See *Vehicle Personalization* ⇨ *155*.

Climate : If equipped, touch to access the Climate menu. See *Dual Automatic Climate Control System* ⇨ *201* or *Rear Climate Control System* ⇨ *204*.

OnStar : If equipped, touch to access the OnStar menu. See *OnStar Overview* ⇨ *401*.

Operation

Radio Controls

The infotainment system is operated by using the center stack controls, menus shown on the infotainment display, and steering wheel controls.

Turning the System On or Off

⏻ **:** Press to turn the radio on. Press and hold to turn the radio off.

Automatic Switch-Off

If the infotainment system has been turned on after the ignition is turned off, the system will turn off automatically after 10 minutes.

Volume Control

⏻ : Turn to increase or decrease. Press when the system is on to mute and unmute the system.

System Settings

Auto Volume

This feature automatically adjusts the radio volume to compensate for road and wind noise.

The level of volume compensation can be selected, or the feature can be turned off.

Tone Settings

The tone settings can be set for each radio band and each audio player source.

Custom Tone Settings

1. Touch SETTINGS on the Home Page.
2. Touch Radio.
3. Touch Tone Settings.
    - Bass, Midrange, or Treble: Touch − or +.
    - Fader or Balance: Adjust the front/rear or left/right speakers by dragging the dot in the vehicle image on the screen.
4. Touch ↩ to go back to the source screen.

Software Updates

Over-the-Air Software Updates

If equipped, the infotainment system can download and install select software updates over a wireless connection. The system will prompt for certain updates to be downloaded and installed. There is also an option to check for updates manually.

To manually check for updates, touch SETTINGS on the Home Page, followed by Software Information, and then System Update. Follow the on-screen prompts. Steps for downloading and installing updates may vary by vehicle.

Downloading Over-the-Air vehicle software updates requires Internet connectivity, which can be accessed through the vehicle's built-in OnStar 4G LTE connection, if equipped and active. If required, data plans are provided by a third party. Optionally, a secure Wi-Fi hotspot such as a compatible mobile device hotspot, home hotspot or public hotspot can be used. Applicable data rates may apply.

To connect the infotainment system to a secured mobile device hotspot, home hotspot, or a public hotspot, touch SETTINGS on the Home Page, followed by Wi-Fi, and then Manage Wi-Fi Networks. Select the appropriate Wi-Fi network, and follow the on-screen prompts. Download speeds may vary.

On most compatible mobile devices, activation of the Wi-Fi hotspot is in the Settings menu under Mobile Network Sharing, Personal Hotspot, Mobile Hotspot or similar.

Availability of Over-the-Air vehicle software updates varies by vehicle and country. For more information on this feature, for U.S./Canada, see my.chevrolet.com/learn. For Mexico, see my.chevrolet.com.mx.

Radio

AM-FM Radio

Playing the Radio

Audio Source Menu

⌂ : Press to go to the Home Page.

⏻ : Press to turn on, mute, or unmute the system. Press and hold to turn off the system.

Selecting a Band

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch AM or FM.

The last station that was playing starts playing again.

Selecting a Station

Seek Tuning

If the radio station is not known:

Press ⏮ or ⏭ to automatically search for available radio stations.

Direct Tune

From the AM or FM menu:

1. Touch Tune.
2. Enter the station number.
3. Touch Go.

Favorites

1. Touch < or > to scroll through the favorite pages.
2. Touch the station to select it.

Update Station List

- From the AM or FM menu, touch Menu, then touch Update Station List. The broadcasting list updating will begin.
- During the AM or FM broadcasting list update, touch Cancel to stop the updates.

Station List

1. From the AM or FM menu, touch Menu.
2. Select Station List.

3. Touch ▲ or ▼ to scroll through the list. Touch the station to select it.

Menu

Touch to choose between available menus for the current source.

Operation

1. Touch MENU on the AM-FM radio screen.
2. Touch the menu to select the desired item or to display the detail menu item.
3. Touch ↩ to return to the previous menu.

Station List

1. Touch Station List from the AM-FM menu. The station list is displayed.
2. Touch ▲ or ▼ to find the desired station. Touch the station to select it.

Tone Settings

1. Touch Tone Settings. See “Tone Settings” under *Operation* ⇨ *179*.
2. Touch ↩ to return to the previous menu.

Auto Volume

1. Touch Auto Volume. See “Auto Volume” under *Operation* ⇨ *179*.
2. Touch ↩ to return to the previous menu.

Categories

1. Touch Categories.
2. Touch ▲ or ▼ to find the desired category. Touch the category to select it.

Storing a Station as a Favorite

Stations from all bands can be stored in any order in the favorite pages.

Up to 25 stations can be stored.

Storing Stations

To store the station to a position in the list, touch and hold the corresponding favorite 1−5.

1. Select the desired station.
2. Touch < or > to select the desired page of saved favorites.
3. Touch and hold any of the favorites to save the current radio station to that location on the selected favorites page.

To change a preset, tune to the new desired radio station and touch and hold the preset.

Satellite Radio

If equipped, vehicles with a SiriusXM Satellite Radio tuner and a valid SiriusXM Satellite Radio subscription can receive SiriusXM programming.

SiriusXM Satellite Radio Service

SiriusXM is a satellite radio service based in the 48 contiguous United States and 10 Canadian provinces. SiriusXM Satellite Radio has a wide variety of programming and commercial-free music, coast to coast, and in digital-quality sound. During your trial or when you subscribe, you will get unlimited access to SiriusXM Radio Online for when you are not in the vehicle. A service fee is required to receive the SiriusXM service. If SiriusXM service needs to be reactivated, the radio will display "No Subscription Please Renew" on channel XM1. For more information, contact SiriusXM at www.siriusxm.com or 1-888-601-6296 (U.S.), and www.siriusxm.ca or 1-877-438-9677 (Canada).

Listening to SiriusXM Radio (If Equipped)

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch SXM and the most recent listened to SiriusXM channel will display.

Selecting a Category

From Menu, touch Categories, then touch the desired category or from Categories, touch ▲ or ▼ to find the desired channel. Touch the channel to select it.

Selecting a Channel

Press ⏮ or ⏭ to seek the previous or next channel.

Using the Preset Buttons

Up to five favorites pages can be saved, and each page can store up to five channels.

To change a preset, tune to the new desired channel and hold the preset.

Listening to Preset Channels

1. Touch < or > repeatedly to select the desired favorites page.
2. Touch the preset to listen to the channel.

Using the SiriusXM Menu

Operation

1. Touch MENU on the SXM screen.
2. Touch the menu to select the desired item or to display the detail menu item.
3. Touch Back on the infotainment display to return to the previous menu.

Channel List

1. Touch Channel List from the SXM menu. The channel list is displayed.
2. Touch ▲ or ▼ to find the desired channel. Touch the channel to select it.

Tone Settings

1. Touch Tone Settings. See “Tone Settings” under *Operation* ⇨ *179*.

2. Touch Back on the infotainment display.

Auto Volume

1. Touch Auto Volume. See “Auto Volume” under *Operation* ⇨ *179*.
2. Touch Back on the infotainment display.

Categories

1. Touch Categories.
2. Touch ▲ or ▼ to find the desired category. Touch the category to select it.

Explicit Content Filter

When on, only a filtered list of channels will be received. When off, all regular SXM programming subscribed to will be received.

1. Touch SXM Explicit Filter.
2. Select to enable or disable.

Radio Reception

Frequency interference and static can occur during normal radio reception if items such as mobile phone chargers, vehicle convenience accessories, and external electronic devices are plugged into the accessory power outlet. If there is interference or static, unplug the item from the accessory power outlet.

FM

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

AM

The range for most AM stations is greater than for FM, especially at night. The longer range can cause station frequencies to interfere with each other. Static can occur when things like storms and power lines interfere with radio reception. When this happens, try reducing the treble on the radio.

SiriusXM Satellite Radio Service

SiriusXM Satellite Radio Service gives digital radio reception from coast to coast in the 48 contiguous United States, and in Canada. Just as with FM, tall buildings or hills can interfere with satellite radio signals, causing the sound to fade in and out. In addition, traveling or standing under heavy foliage, bridges, garages, or tunnels may cause loss of the SiriusXM signal for a period of time.

Cell Phone Usage

Cell phone usage, such as making or receiving phone calls, charging, or just having the phone on may cause static interference in the radio. Unplug the phone or turn it off if this happens.

Antenna

The AM-FM antenna is integrated in the liftgate spoiler and the liftgate window defogger.

No maintenance or adjustments are needed. Do not place loads on the spoiler.

If the spoiler is replaced, be sure it is replaced with the correct GM parts for the best AM and FM reception.

Do not scratch the inside surface or damage the lines in the glass. If the inside surface is damaged, it could interfere with radio reception.

If attaching a cell phone antenna to the glass, attach it between the grid lines.

Multi-Band Antenna

The multi-band antenna is on the roof of the vehicle. The antenna is used for OnStar, the SiriusXM Satellite Radio Service System, and GPS (Global Positioning System), if the vehicle has these features. Keep the antenna clear of obstructions for clear reception.

If the vehicle has a sunroof, and it is open, reception can also be affected.

Audio Players

Avoiding Untrusted Media Devices

When using media devices such as CDs, DVDs, Blu-ray Discs, SD cards, USB devices, and mobile devices, consider the source. Untrusted media devices could contain files that affect system operation or performance. Avoid use if the content or origin cannot be trusted.

USB Port

Using the USB Port

The infotainment system can play music by connecting an auxiliary device to the USB port.

USB Support

The USB ports are on the center stack, and use the USB 2.0 standard. There is also a USB port in the storage area behind the radio. There are also charging only USB ports on the rear of the center console and in the third row seating area.

USB Supported Devices

- USB Flash Drives
- Portable USB Hard Drives

Not all iPods and USB drives are compatible with the USB port.

Make sure the iPod has the latest firmware from Apple for proper operation. iPod firmware can be updated using the latest iTunes application. See www.apple.com/itunes.

For help with identifying your iPod, go to www.apple.com/support.

The USB port can play both lower and upper case .mp3, .wma, .ogg, and .wav files stored on a USB storage device.

Supported Apple Devices

To view supported devices in U.S., see www.my.chevrolet.com\learned.

To view supported devices in Canada, see www.chevroletowner.ca.

To view supported devices in Mexico, see your dealer for details.

USB Supported File and Folder Structure

The infotainment system supports:

- FAT16
- FAT32
- exFAT

Connecting a USB Storage Device or iPod/iPhone

To connect a USB storage device, connect the device to the USB port.

To connect an iPod/iPhone, connect one end of the device's cable to the iPod/iPhone and the other end to the USB port.

The iPod/iPhone charges while it is connected to the vehicle if the ignition is on or in ACC/ACCESSORY. See *Ignition Positions* ⇨ *225*. When the vehicle is turned off, the iPod/iPhone automatically powers off and will not charge or draw power from the vehicle's battery.

For more information on USB usage, see "Audio System Information" following.

Audio System Information

The infotainment system can play the music files contained in the USB storage device or iPod/iPhone products.

Using MP3/WMA/OGG/WAV Files

- Music files with .mp3, .wma, .ogg, and .wav file name extensions can be played.
- MP3 files that can be played: Bit rate: 8 kbps to 320 kbps. Sampling frequency: 48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, and 16 kHz.
- Files with a bit rate above 128 kbps will result in higher quality sound.
- ID3 Tag information for MP3 files, such as the album name and the artist, can be played.

- To display album title, track title, and artist information, the file should be compatible with the ID3 Tag V1 and V2 formats.

Using USB Storage Devices or iPod/iPhone

- Use a USB or flash memory type storage device. Do not connect using a USB adaptor.
- Do not connect and reconnect the USB device repeatedly in a short time, as this may cause static electricity and problems using the device.
- Use a USB device with a metal connecting terminal.
- Connection with i-Stick Type USB storage devices may be faulty due to vehicle vibration.
- Do not touch the USB connecting terminal.
- Only USB storage devices formatted in FAT16/32 or exFAT file systems are recognized. NTFS and other file systems are not recognized.
- The time it takes to process files will depend on the USB storage device type and capacity, and the type of files stored.
- Some USB storage device files may not be compatible.
- Up to two USB devices and one iPod can be played through a USB hub. All devices may not be supported, depending on the performance of the USB hub. If there is not enough power supply, it may not operate normally.
- Do not disconnect the USB storage device while it is playing. This may cause damage to the product or affect the performance of the USB device.
- Disconnect the USB storage device when the ignition is turned off. If the ignition is turned on while the USB device is connected, the USB device may be damaged or may not operate normally.
- USB storage devices can only be connected for playing music, viewing photo files, or upgrading.
- Do not use the USB terminal to charge USB accessory equipment. The heat generated may cause performance issues or damage.
- Music files to which Digital Right Management (DRM) is applied cannot be played.
- USB storage device that has a capacity limit of no more than 5,000 files, such as music, photo, video, and 15 levels of folder structure. Normal usage cannot be guaranteed for a storage device that exceeds this limit. The iPod/iPhone can play all music files that are supported. The music file lists will only display in alphabetical order up to 5,000 files on the screen.

- Some iPod/iPhone product models may not support the connectivity or functionality of this product.
- Only connect the iPod/iPhone with connection cables supported by iPod/iPhone products. Other connection cables cannot be used.
- The iPod/iPhone may be damaged if it is connected to the vehicle with the ignition on. When not in use, disconnect the iPod/iPhone.
- When the iPod/iPhone is connected to the USB port by using the iPod/iPhone cable, the Bluetooth music is not supported.
- The iPod/iPhone playback functions and the information displayed may be different when played on the infotainment system.

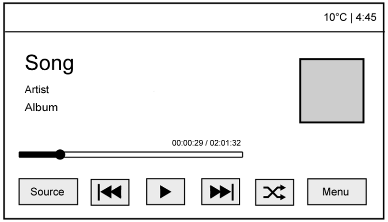
	Step 1	Step 2
Playlists	Playlists	Songs
Artists	Albums/ All Songs	Songs
Albums	Albums	Songs
Songs	Songs	
Genres	Albums/ All Songs	Songs
Composer	Albums/ All Songs	Songs
Audiobooks	Songs	

- Refer to the table for the classification items related to the search function provided by the iPod/iPhone.

USB Player

Playing Music from a USB Device

- Connect the USB device to the USB port.
- Play will start automatically after the system has finished reading the USB device.
- If a non-readable USB device is connected, an error message displays and the system will switch to the previous audio function.



If the USB device is already connected:

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch USB.

To stop the USB device and select another media source, touch Source, then select the other source.

To remove the USB device, select another function, then remove the USB device.

Pause

- Touch ❚❚ to pause.
- Touch ▶ to resume.

Changing to Next/Previous Songs

- Touch ⏭ to change to the next song.
- Touch ⏮ within five seconds of the playback time to play the previous song.

Returning to the Beginning of the Current Song

Touch ⏮ after five seconds of the playback time.

Scanning Forward or Backward

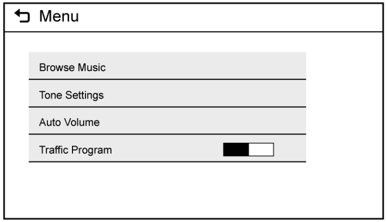
Touch and hold ⏮ or ⏭ during playback to rewind or fast forward. Release to resume playback at normal speed.

Playing Songs Randomly

Touch 🔀 during playback.

- ON: Plays all songs randomly.
- OFF: Returns to normal playback.

Using the USB Music Menu



- Touch Menu during playback.
- Touch the desired menu.
- Applicable audio extensions are asx, m3u, .pls, .wpl, b4s, and .xspf.

Browse Music

1. Touch Browse Music.
2. Touch the desired music.

Tone Settings

- Touch Tone Settings. The Tone Settings menu is displayed. See "Tone Settings" under "Radio Controls" in *Operation* ⇨ *179*.

Auto Volume

- Touch Auto Volume. The Auto Volume menu is displayed. See "Auto Volume" under "Radio Controls" in *Operation* ⇨ *179*.

Traffic Program (If Equipped)

- Touch On or Off.

MTP (Media Transfer Protocol)

- Connect a MTP supported device.
- Play will start automatically after the system has finished reading the MTP device.
- If a non-readable MTP device is connected, an error message displays and the system will switch to the previous audio function.

iPod/iPhone Player

This feature is limited to models supporting the iPod/iPhone connection.

Playing Music from an iPod/iPhone Player

- Connect the iPod/iPhone to the USB port.
- Play will start from the previously played point after the system has finished reading the USB device.
- If a non-readable USB device is connected, an error message displays and the system will switch to the previous audio function.

If the iPod/iPhone is already connected:

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch iPod.

To stop the device and select another media source, touch Source, then select the other source.

To remove the device, select another function, then remove the device.

Pause

- Touch ⏸ to pause.
- Touch ▶ to resume.

Changing to Next/Previous Song

- Touch ⏭ to change to the next song.
- Touch ⏮ within two seconds of the playback time to play the previous song.

Returning to the Beginning of the Current Song

Touch ⏮ after two seconds of the playback time.

Scanning Forward or Backward

Touch and hold ⏮ or ⏭ during playback to rewind or fast forward. Release to resume playback at normal speed.

Playing Songs Randomly

Touch ⤮ during playback.

- ON: Plays all songs randomly.
- OFF: Returns to normal playback.

Using the iPod Menu

- Touch Menu during playback.
- Touch the appropriate play mode.

Browse Music

1. Touch Browse Music.
2. Touch the desired music.

Tone Settings

- Touch Tone Settings. The Tone Settings menu is displayed. See “Tone Settings” under “Radio Controls” in *Operation* ⇨ *179*.

Auto Volume

- Touch Auto Volume. The Auto Volume menu is displayed. See “Auto Volume” under “Radio Controls” in *Operation* ⇨ *179*.

Picture System Information

The infotainment system can view picture files stored on a USB storage device and devices that support Media Transfer Protocol (MTP).

- Supported file extensions: .jpg, .bmp, .png, .gif.
- Animated GIF files are not supported.
- Some files may not operate due to a different recording format or the condition of the file.

Viewing Pictures

1. Connect the USB device to the USB port.
2. Touch the infotainment display to open to full screen. Touch the infotainment display again to return to the previous screen.

If the USB device is already connected:

1. Press ⌂.
2. Touch GALLERY.

Some features are disabled while the vehicle is in motion.

Viewing a Slide Show

1. Touch ▶ from the picture screen.
2. Touch the screen to cancel the slide show during the slide show playback.

Viewing a Previous or Next Picture

Touch < or > from the picture screen.

Rotating a Picture

Touch ↻ from the picture screen.

Enlarging a Picture

Touch 🔍×1 from the picture screen.

Using the USB Picture Menu

1. Touch MENU from the picture screen.
2. Touch the appropriate menu:
    - Slide Show Time: Allows selection of the slide show interval.
    - Clock, Temp. Display: Allows selection of On or Off to show the clock and temperature on the full screen.
    - Display Settings: Adjusts for Brightness and Contrast.
3. Touch Back on the infotainment display to exit.

Auxiliary Devices

Using the Auxiliary Input Jack

Settings menus and functions may vary depending on vehicle options.

The auxiliary input jack can be used to connect external audio devices such as an iPod, iPhone, MP3 player, CD player, and other supported devices for use as another source for audio listening. This input jack is not an audio output; do not plug headphones into the front auxiliary input jack.

The auxiliary input jack is in the center stack. The infotainment system can play music connected by the auxiliary device.

Play will begin when the system has finished reading the information on the device.

Playing Music

To play music from the device, if the device is already connected:

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch AUX.

To adjust the tone settings, see “Tone Settings” in *Operation ⇨ 179*.

Phone

Bluetooth (Overview)

If equipped with Bluetooth capability, the system can interact with many Bluetooth phones, PDAs, or other devices to:

- Place and receive hands-free calls.
- Transmit hands-free data.
- Play audio streaming files.

The device must be paired first. See “Pairing” later in this section.

To minimize driver distraction, before driving, and with the vehicle parked:

- Become familiar with the features of the cell phone. Organize the phone book and contact lists clearly and delete duplicate or rarely used entries. If possible, program speed dial or other shortcuts.
- Review the controls and operation of the infotainment system.
- Pair cell phone(s) to the vehicle. The system may not work with all cell phones. See “Pairing” later in this section.

⚠ Warning

When using a cell phone, it can be distracting to look too long or too often at the screen of the phone or the infotainment system. Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Vehicles with a Bluetooth system can use a Bluetooth-capable cell phone with a Hands-Free Profile to make and receive phone calls. The infotainment system is used to control the system. The system can be used while ignition is on or in ACC/ACCESSORY. See *Ignition Positions ⇨ 225*. Not all phones support all functions and not all phones work with the Bluetooth system. See www.gm.com/bluetooth for more information about compatible phones, for U.S. and Canada only.

The Bluetooth system range can be up to 9.1 m (30 ft).

There may be restrictions on using Bluetooth wireless technology in some locations.

Due to the variety of Bluetooth devices and their firmware versions, the device may respond differently when performing over Bluetooth.

On a current phone call, an image of the current contact from the phone's contact list may be displayed. Not all phones are compatible with this feature.

Refer to the cell phone manufacturer’s user guide for questions about the phone's Bluetooth functionality.

Bluetooth Controls

If equipped with Bluetooth capability, use the controls on the infotainment system and the steering wheel to operate the system.

Steering Wheel Controls

See *Steering Wheel Controls* ⇨ *125*.

Bluetooth (Infotainment Controls)

To use infotainment controls to access the menu system, see *Overview* ⇨ *178*.

Pairing

A Bluetooth-enabled cell phone must be paired to the Bluetooth system and then connected to the vehicle before it can be used. See your cell phone manufacturer's user guide for Bluetooth functions before pairing the cell phone. If a Bluetooth phone is not connected, calls will be made using OnStar Hands-Free Calling, if available. See *OnStar Overview* ⇨ *401*.

Pairing Information

- A Bluetooth phone with MP3 capability cannot be paired to the vehicle as a phone and an MP3 player at the same time.
- Up to 10 cell phones can be paired to the Bluetooth system.
- The pairing process is disabled when the vehicle is moving.
- Pairing only needs to be completed once, unless the pairing information on the cell phone changes or the cell phone is deleted from the system.
- Only one paired cell phone can be connected to the Bluetooth system at a time.
- If multiple paired cell phones are within range of the system, the system connects to the first available paired cell phone in the order that they were first paired.

When the Bluetooth device and infotainment system are successfully paired, the phone book is downloaded automatically. This is dependent on the type of phone paired. If the automatic download does not occur, proceed with the phone book download on the phone.

Pairing a Phone – SSP and No Paired Device

When there is no paired device on the infotainment system and Simple Secure Pairing (SSP) is supported:

1. Press ⌂.
2. Touch PHONE, press 📞 on the center stack, or press 🗣 on the steering wheel without OnStar.
3. Touch Search Device.
4. Touch the desired device to pair on the searched list screen.
5. Touch Yes on the pop-up screen of the Bluetooth device and infotainment system.
6. When the Bluetooth device and infotainment system are successfully paired, the phone screen is displayed on the infotainment system.

Pairing a Phone – SSP and Paired Device

When a paired device is on the infotainment system and SSP is supported:

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. Touch the desired device to pair. When the Bluetooth device and infotainment system are successfully paired, ♪ / 📞 is displayed on the pair device screen. If no desired device is available go to Step 5.
5. Touch Search Device to search for the desired device.
6. Touch the desired device to pair on the searched list screen.
7. Touch Yes on the pop-up screen of the Bluetooth device and infotainment system.

- The connected phone is highlighted by 📞.
- ♪ / 📞 indicates the hands-free and phone music functions are enabled.
- 📞 indicates only the hands-free function is enabled.
- ♪ indicates only Bluetooth music is enabled.

Pairing a Phone – No SSP and No Paired Device

When there is no paired device on the infotainment system and SSP is not supported:

1. Press ⌂.
2. Touch PHONE, press 📞 on the center stack, or press 🗣 on the steering wheel without OnStar.
3. Touch Search Device.
4. Touch the desired device to pair on the searched list screen.

5. Input the Personal Identification Number (PIN) code (default: 1234) to the Bluetooth device. When the Bluetooth device and infotainment system are successfully paired, the PHONE screen is displayed on the infotainment system.

When the connection fails, a failure message is displayed on the infotainment system.

If a Bluetooth device was previously connected, the infotainment system executes the auto connection. However, if the Bluetooth setting on the Bluetooth device is turned off, a failure message is displayed on the infotainment system.

Pairing a Phone – No SSP and Paired Device

When a paired device is on the infotainment system and SSP is not supported:

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. Touch the desired device to pair. When the Bluetooth device and infotainment system are successfully paired, ♪ / ☎ is displayed on the pair device screen. If no desired device is available go to Step 5.
5. Touch Search Device to search for the desired device.
6. Touch the desired device to pair on the searched list screen.
7. Input the Personal Identification Number (PIN) code (default: 1234) to the Bluetooth device. When the Bluetooth device and infotainment system are successfully paired, ♪ / ☎ is displayed on the pair device screen.

- The connected phone is highlighted by ☎.
- ♪ / ☎ indicates the hands-free and phone music functions are enabled.
- ☎ indicates only the hands-free function is enabled.
- ♪ indicates only Bluetooth music is enabled.

Connecting a Paired Bluetooth Device

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. Touch the device to be connected.

Checking the Bluetooth Connection

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. The paired device will show.

Disconnecting a Bluetooth Device

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. Touch the name of the device to be disconnected.
5. Touch Disconnect.

Deleting a Bluetooth Device

1. Press ⌂.
2. Touch SETTINGS.
3. Touch Bluetooth, then Device Management.
4. Touch the device to delete.
5. Touch 🗑.
6. Touch Delete.

Bluetooth Music

Before playing Bluetooth music, read the following information:

- A cell phone or Bluetooth device that supports Advanced Audio Distribution Profile (A2DP) versions over 1.2 must be registered and connected to the product.
- From the cell phone or Bluetooth device, find the Bluetooth device type to set/connect the item as a stereo headset.
- ♪ will appear on the screen if the stereo headset is successfully connected.
- The sound played by the Bluetooth device is delivered through the infotainment system.
- Bluetooth music can be played only when a Bluetooth device has been connected. To play Bluetooth music, connect the Bluetooth phone to the infotainment system.
- If the Bluetooth device is disconnected while playing phone music, the music is discontinued. The audio streaming function may not be supported in some Bluetooth phones. Only one function can be used at a time between the Bluetooth hands-free or Phone music function. For example, if you convert to Bluetooth hands-free while playing Phone music, the music is discontinued. Playing music from the car is not possible when there are no music files stored in the cell phone.

Playing Bluetooth Music

1. Press ⌂.
2. Touch AUDIO.
3. Touch Source.
4. Touch Bluetooth.

Pause

Touch ⏸ to pause.

Touch ▶ to resume.

Playing the Next Song

Touch ⏭.

Playing the Previous Song

Touch ⏮ within two seconds of playback time.

Returning to the Beginning of the Current Song

Touch ⏮ after two seconds of playback time.

Search

Touch and hold ⏮ or ⏭ to rewind or fast forward.

Playing Music Randomly

Touch 🔀 during playback. Touch again to return to normal play.

This function may not be supported depending on the Bluetooth device.

Do not change the track too quickly when playing Bluetooth music.

Conditions that may occur when playing Bluetooth music:

- It takes time to transmit data from the Bluetooth device to the infotainment system.
- If the cell phone or Bluetooth device is not in the waiting screen mode, it may not automatically play.
- The infotainment system transmits the order to play from the Bluetooth device in the Bluetooth music play mode. If this is done in a different mode, then the device transmits the order to stop. Depending on the Bluetooth device options, this order to play/stop may take time to activate.
- If the Bluetooth music playback is not functioning, then check to see if the Bluetooth device is in the waiting screen mode.
- Sounds may be cut off during the Bluetooth music playback.
- The infotainment system outputs the audio from the cell phone or Bluetooth device as it is transmitted.

Apple CarPlay and Android Auto

If equipped, Android Auto and/or Apple CarPlay capability may be available through a compatible smartphone. If available, PROJECTION will appear on the Home Page of the infotainment display.

To use Android Auto or Apple CarPlay:

1. Download the Android Auto app to your phone from the Google Play store. No app is required for Apple CarPlay.
2. Connect an Android phone or iPhone by using the compatible phone USB cable and plugging into a USB data port. For best performance, use the device's factory-provided USB cable. Aftermarket or third-party cables may not work.
3. When the phone is first connected to activate Apple CarPlay or Android Auto, the message “Device Projection Privacy Consent” will appear.
    - Select Continue to launch Apple CarPlay or Android Auto.

- Select Disable to remove Apple CarPlay and Android Auto capability from the vehicle Settings menu. Other functions may still work.

PROJECTION on the Home Page will change to Android Auto or Apple CarPlay depending on the phone. Android Auto and/or Apple CarPlay may automatically launch upon USB connection. If not, touch the ANDROID AUTO and/or APPLE CARPLAY icon on the Home Page to launch.

Press ⌂ on the center stack to return to the Home Page.

For further information on how to set up Android Auto and Apple CarPlay in the vehicle, see my.chevrolet.com or see *Customer Assistance Offices ⇨ 389*.

Android Auto is provided by Google and is subject to Google's terms and privacy policy. Apple CarPlay is provided by Apple and is subject to Apple's terms and privacy policy. Data plan rates apply.

For Android Auto support see https://support.google.com/androidauto. For Apple CarPlay support see www.apple.com/ios/carplay/. Apple or Google may change or suspend availability at any time. Android Auto, Android, Google, Google Play, and other marks are trademarks of Google Inc.; Apple CarPlay is a trademark of Apple Inc.

Hands-Free Phone

General Information

Vehicles with a Hands-Free Phone system can use a Bluetooth-capable cell phone with a hands-free profile to make and receive phone calls. The infotainment system and voice commands are used to operate the system. Not all phones support all functions and not all phones work with the Hands-Free Phone system.

Hands-Free Phone Controls

Use the controls on the infotainment system and the steering wheel to operate the Hands-Free Phone system.

Steering Wheel Controls

Steering wheel controls can be used to:

- Answer incoming calls.
- Confirm system information.
- End a call.
- Decline a call.
- Cancel an operation.
- Make outgoing calls using the call list.

🗣 : Press to answer incoming calls.

☎ : Press to end a call, decline a call, or cancel an operation.

Making a Call by Entering a Phone Number

- Press 📞 on the center stack.
- Press ⌂, then touch PHONE on the infotainment display.
- Press 🗣 on the steering wheel.

If a wrong number is entered, touch ⬅ to delete the number one digit at a time, or touch and hold ⬅ to delete all digits of the number.

Switching a Call to the Cell Phone (Private Mode)

To switch the call from the cell phone to hands-free:

1. Touch 📱.
2. Touch 📱 again to switch back to hands-free.

Turning the Microphone On and Off

Touch 🎙 to turn the microphone on or off.

Calling by Redial

To call by using redial:

- Press 🗣 on the steering wheel controls to display the redial guidance screen.
- Touch 📞 on the infotainment display, or press 📞 on the center stack.

Redialing is not possible when there is no call history.

Taking Calls

When a phone call comes through the connected Bluetooth cell phone, the audio system will be muted or paused and the phone will ring with the relevant information displayed.

Press 🗣 on the steering wheel controls, touch 📞 on the infotainment display, or press 📞 on the center stack.

To decline the call, press ☎ on the steering wheel controls or touch Reject on the infotainment display.

Using the Contacts Menu

1. Touch contacts on the phone screen.
2. Touch ▲ or ▼ to scroll through the list.
3. Touch the phone book entry to call.
4. If there is more than one number associated with the name, touch the number to dial.

Searching for Contacts Entries

1. Touch contacts on the phone screen.
2. Touch 🔍 on the contacts screen.
3. Use the keypad to input the name to search. For details, see “Searching for a Name” following.
4. Touch the phone book entry to call.
5. If there is more than one number associated with the name, touch the number to dial.

When the Bluetooth device and infotainment system are successfully paired, the phone book will download. Some phones may not download automatically. If this happens, connect it again or proceed with the phone book download on the phone.

Searching for a Name

Select characters by using the keypad on the phone book screen. As characters are selected, the names that include those characters will display on the phone book screen. As more characters of the name are entered, the list of possible names is shortened.

To search for the name Alex:

1. Touch (abc) to select the first character.
2. Touch (jkl) three times to select the second character.
3. Touch (def) two times to select the third character.
4. Touch (wxy) two times to select the fourth character.

Making a Call from Call History

1. Touch Call History on the phone screen.
2. Touch one of the following for:
   - All calls history.
   - Dialed calls.
   - Missed calls.
   - Received calls.
3. Select the contact entry to call.

Making a Call with Speed Dial Numbers

Touch and hold the speed dial number using the keypad on the phone screen.

Only speed dial numbers already stored on the cell phone can be used for speed dial calls. Up to two-digit speed dial numbers are supported.

For two-digit speed dial numbers, press and hold the second digit to make a call to the speed dial number.

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Made for iPod iPhone

“Made for iPod” and “Made for iPhone” mean that an electronic accessory has been designed to connect specifically to iPod or iPhone and has been certified by the developer to meet Apple performance standards.

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Climate Controls

Climate Control Systems

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Rear Climate Control System 204

Air Vents

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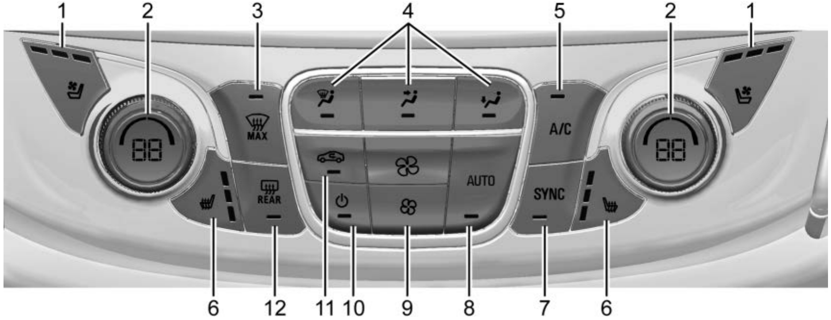
Climate Control Systems

Dual Automatic Climate Control System

The heating, cooling, and ventilation for the vehicle can be controlled with this system.



1. Driver and Passenger Ventilated Seats (If Equipped)
2. Driver and Passenger Temperature Controls
3. MAX Defrost
4. Air Delivery Mode Controls
5. A/C (Air Conditioning)
6. Driver and Passenger Heated Seats (If Equipped)
7. SYNC
8. AUTO (Automatic Operation)
9. Fan Controls
10. Power (On/Off)
11. Recirculation

12. Rear Window Defogger

Automatic Operation

The system automatically controls the fan speed, air delivery, air conditioning, and recirculation in order to heat or cool the vehicle to the desired temperature.

When AUTO is lit, all four functions operate automatically. Each function can also be manually set and the selected setting is displayed. Functions not manually set will continue to be automatically controlled, even if the AUTO indicator is not lit.

For automatic operation:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilize. Adjust the temperature as needed for best comfort.

To improve fuel efficiency and to cool the vehicle faster with A/C on, recirculation may be automatically selected in warm weather. Press ⟲ to select recirculation; press it again to select outside air.

Driver and Passenger Temperature Controls : The temperature can be adjusted separately for the driver and the passenger. Turn the knob clockwise or counterclockwise to increase or decrease the driver or passenger temperature setting.

SYNC : Press to link all passenger temperature settings to the driver setting. The SYNC indicator light will turn on. When the passenger settings are adjusted, the SYNC indicator light turns off.

Manual Operation

⏻ : Press to turn the fan off or on. When off is selected, the system will prevent air from flowing into the cabin. If on is selected, or any other button is pressed, the climate control system will turn on and return to delivering airflow as set. The temperature control and air delivery mode can still be adjusted.

✤ : Press to increase or decrease the fan speed. The fan speed setting appears on the main display. Pressing any air flow mode button cancels automatic fan control and the fan is controlled manually. Press AUTO to return to automatic operation.

Air Delivery Mode Controls : Press ⇈, →, or ↘ to change the direction of the airflow. Any combination of the three buttons can be selected. The indicator light in the button will turn on. The current mode appears in the display screen. Pressing either button cancels automatic air delivery control and the direction of the airflow is controlled manually. Press AUTO to return to automatic operation.

To change the current mode, select one or more of the following modes:

⇈ : Clears the windows of fog or moisture. Air is directed to the windshield.

→ : Air is directed to the instrument panel outlets.

↘ : Air is directed to the floor outlets.

MAX : Air is directed to the windshield, the fan runs at a higher speed, and the temperature of the air is increased if not already at maximum. This mode overrides the previous mode selected and clears fog or frost from the windshield more quickly. When the button is pressed again, the system returns to the previous mode setting and fan speed.

For best results, clear all snow and ice from the windshield before defrosting.

A/C : Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.

Pressing this button cancels automatic air conditioning and turns off the air conditioner. Press AUTO to return to automatic operation and the air conditioner runs automatically as needed. When the indicator light is on, the air conditioner runs automatically to cool the air inside the vehicle or to dry the air needed to defog the windshield faster.

: Press to turn on recirculation. An indicator light comes on. Air is recirculated to quickly cool the inside of the vehicle or to reduce the entry of outside air and odors.

If selected during cool or cold weather, the windshield and windows may fog. Turn off recirculation to help clear the windshield and windows.

Auto Defog : The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. The fan speed may slightly increase to help prevent fogging. If the climate control system does not detect possible window fogging, it returns to normal operation.

To turn Auto Defog off or on, see "Climate and Air Quality" under *Vehicle Personalization* ⇨ *155*.

Rear Window Defogger

REAR : Press to turn the rear window defogger on or off. An indicator light on the button comes on to show that the rear window defogger is on. The rear window defogger only works when the ignition is on. The defogger turns off when the ignition is off or in ACC/ACCESSORY.

The rear window defogger can be set to automatic operation. See "Climate and Air Quality" under *Vehicle Personalization* ⇨ *155*. When Auto Rear Defog is selected, the rear window defogger turns on automatically when the interior temperature is cold and the outside temperature is about 7 °C (44 °F) and below. The auto rear defogger turns off automatically.

If the vehicle is equipped with heated outside mirrors, they turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirror. See *Heated Mirrors* ⇨ *53*.

Caution

Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

or : If equipped, press or to heat the driver or passenger seat. See *Heated and Ventilated Seats* ⇨ *13*.

or : If equipped, press or to ventilate the driver or passenger seat. See *Heated and Ventilated Front Seats* ⇨ *69*.

Remote Start Climate Control Operation : If equipped with remote start, the climate control system may run when the vehicle is started remotely. The system will use the defrost setting if it is cold outside or turn on using the coldest settings if it is hot outside. The rear defog may come on during remote start based on cold ambient conditions. The rear defog indicator light does not come on during a remote start.

If equipped, the heated seats will turn on if it is cold outside or the ventilated seats will turn on if it is hot outside. The heated and ventilated seat indicator lights may not come on during a remote start. If equipped, the heated steering wheel will come on in a remote start if it is cold outside. The heated steering wheel indicator light may not come on. See *Vehicle Personalization* ⇨ *155*, *Remote Vehicle Start* ⇨ *37*, and *Heated and Ventilated Front Seats* ⇨ *69*.

Sensor

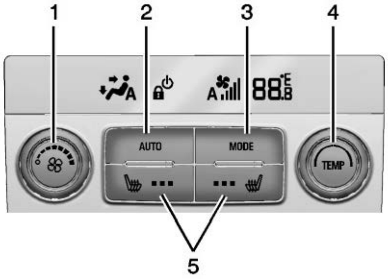
The solar sensor, on top of the instrument panel near the windshield, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.

Do not cover the sensor; otherwise the automatic climate control system may not work properly.

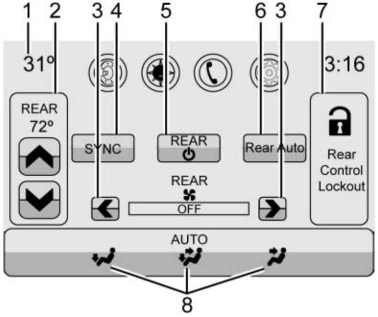
Rear Climate Control System

The rear climate control system is on the rear of the center console storage. The settings can be adjusted by either the rear climate control or the rear climate display app on the front infotainment display.



Rear Climate Controls

1. Fan Control
2. AUTO (Automatic Operation)
3. MODE (Air Delivery Mode Control)
4. TEMP (Temperature Control)
5. Heated Rear Seats (If Equipped)



Rear Climate Display

1. Outside Temperature Display
2. Rear Climate Temperature Control
3. Fan Control
4. SYNC (Synchronized Temperatures)
5. REAR ⏻ (On/Off)
6. Rear Auto (Automatic Operation)
7. Rear Control Lockout
8. Air Delivery Mode Control

REAR ⏻ : Press REAR ⏻ to turn the rear climate control on or off.

SYNC : Press SYNC on the rear climate display to match the rear climate control temperature to the front climate control driver temperature. The SYNC button will be lit. Adjust the rear climate control temperature to change the linked temperature. The SYNC button turns off. When SYNC is active the display is not shown.

Rear Control Lockout : Press Rear Control Lockout on the rear climate display to lock or unlock control of the rear climate control system from the front seat. When locked the rear climate control system cannot be adjusted from the rear climate controls.

Automatic Operation

AUTO : Press AUTO or touch Rear Auto on the rear climate display to automatically control air delivery and fan speed. A is indicated in the display on the rear of the center console storage when automatic operation is active. If any of the climate control settings are manually adjusted, this cancels full automatic operation.

The display on the rear of the center console storage only indicates climate control functions when the system is in rear independent mode.

Manual Operation

✻ : Turn the knob clockwise or counterclockwise or touch and hold ◀ or ▶ on the rear climate display to increase or decrease the fan speed.

TEMP : Turn the knob clockwise or counterclockwise or press and hold the rear climate display temperature controls to adjust the rear passenger temperature. If SYNC is lit, the rear climate temperature is linked to the driver temperature setting.

➔/➔/➔ or MODE : Touch the desired mode on the rear climate display or press MODE on the rear climate controls to change the direction of the airflow in the rear seating area. Repeatedly press MODE until the desired mode appears on the display.

♨ or ♨ : If equipped, press ♨ or ♨ to heat the left or right rear outboard seat. See *Heated Rear Seats ⇨ 73*.

Air Vents

Use the slider switch on the air outlets to change the direction of the airflow, or to open and close off the airflow.

There are also outlets overhead in the rear passenger area; adjust as needed.

Keep all outlets open whenever possible for best system performance.

Operation Tips

- Clear away any ice, snow, or leaves from the air inlets at the base of the windshield that can block the flow of air into the vehicle.
- Clear snow off the hood to improve visibility and help decrease moisture drawn into the vehicle.

- Use of non-GM approved hood deflectors can adversely affect the performance of the system.
- Keep the path under all seats clear of objects to help circulate the air inside the vehicle more effectively.
- If fogging reoccurs while in vent or bi-level modes with mild temperature throughout the vehicle, turn on the air conditioner to reduce windshield fogging.

Maintenance

Passenger Compartment Air Filter

The filter reduces dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle. The filter should be replaced as part of routine scheduled maintenance. See *Maintenance Schedule ⇨ 371*.

See your dealer regarding replacement of the filter.

Service

All vehicles have a label underhood that identifies the refrigerant used in the vehicle. The refrigerant system should only be serviced by trained and certified technicians. The air conditioning evaporator should never be repaired or replaced by one from a salvage vehicle. It should only be replaced by a new evaporator to ensure proper and safe operation.

During service, all refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to the environment and may also create unsafe conditions based on inhalation, combustion, frostbite, or other health-based concerns.

The air conditioning system requires periodic maintenance. See *Maintenance Schedule ⇨ 371*.

Driving and Operating

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Driving Information

Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, keep your eyes on the road, keep your hands on the steering wheel, and focus your attention on driving.

- Do not use a phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.
- Become familiar with vehicle features before driving, such as programming favorite radio stations and adjusting climate control and seat settings. Program all trip information into any navigation device prior to driving.
- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a cell phone.

⚠ Warning

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the infotainment section for more information on using that system and the navigation system, if equipped, including pairing and using a cell phone.

Defensive Driving

Defensive driving means “always expect the unexpected.” The first step in driving defensively is to wear the seat belt. See *Seat Belts ⇨ 76*.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they might do and be ready.
- Allow enough following distance between you and the driver in front of you.
- Focus on the task of driving.

Drunk Driving

Death and injury associated with drinking and driving is a global tragedy.

⚠ Warning

Drinking and then driving is very dangerous. Your reflexes, perceptions, attentiveness, and judgment can be affected by even a small amount of alcohol. You can have a serious — or even fatal — collision if you drive after drinking.

Do not drink and drive or ride with a driver who has been drinking. Ride home in a cab; or if you are with a group, designate a driver who will not drink.

Control of a Vehicle

Braking, steering, and accelerating are important factors in helping to control a vehicle while driving.

Braking

Braking action involves perception time and reaction time. Deciding to push the brake pedal is perception time. Actually doing it is reaction time.

Average driver reaction time is about three-quarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

- Keep enough distance between you and the vehicle in front of you.
- Avoid needless heavy braking.
- Keep pace with traffic.

If the engine ever stops while the vehicle is being driven, brake normally but do not pump the brakes. Doing so could make the pedal harder to push down. If the engine stops, there will be some power brake assist but it will be used when the brake is applied.

Once the power assist is used up, it can take longer to stop and the brake pedal will be harder to push.

Steering

Electric Power Steering

The vehicle has electric power steering. It does not have power steering fluid. Regular maintenance is not required.

If power steering assist is lost due to a system malfunction, the vehicle can be steered, but may require increased effort.

If the steering assist is used for an extended period of time while the vehicle is not moving, power assist may be reduced.

If the steering wheel is turned until it reaches the end of its travel and is held against that position for an extended period of time, power steering assist may be reduced.

Normal use of the power steering assist should return when the system cools down.

See your dealer if there is a problem.

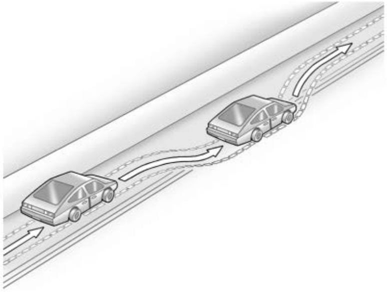
Curve Tips

- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve.
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.
- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- The Antilock Brake System (ABS) allows steering while braking.

Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

1. Ease off the accelerator and then, if there is nothing in the way, steer the vehicle so that it straddles the edge of the pavement.
2. Turn the steering wheel about one-eighth of a turn, until the right front tire contacts the pavement edge.

3. Turn the steering wheel to go straight down the roadway.

Loss of Control

Skidding

There are three types of skids that correspond to the vehicle's three control systems:

- Braking Skid — wheels are not rolling.
- Steering or Cornering Skid — too much speed or steering in a curve causes tires to slip and lose cornering force.
- Acceleration Skid — too much throttle causes the driving wheels to spin.

Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not overdriving those conditions. But skids are always possible.

If the vehicle starts to slide, follow these suggestions:

- Ease your foot off the accelerator pedal and steer the way you want the vehicle to go. The vehicle may straighten out. Be ready for a second skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance can be longer and vehicle control can be affected when traction is reduced by water, snow, ice, gravel, or other material on the road. Learn to recognize warning clues — such as enough water, ice, or packed snow on the road to make a mirrored surface — and slow down when you have any doubt.
- Try to avoid sudden steering, acceleration, or braking, including reducing vehicle speed by shifting to a lower gear. Any sudden changes could cause the tires to slide.

Remember: Antilock brakes help avoid only the braking skid.

Off-Road Driving

All-wheel-drive vehicles can be used for off-road driving. Vehicles without all-wheel drive and vehicles not equipped with All Terrain (AT) or On-Off Road (OOR) tires must not be driven off-road except on a level, solid surface. To contact the tire manufacturer for more information about the original equipment tires, see the warning manual.

Controlling the vehicle is the key to successful off-road driving. One of the best ways to control the vehicle is to control the speed.

⚠ Warning

When driving off-road, bouncing and quick changes in direction can easily throw you out of position. This could cause you to lose control and crash. You and your passengers should always wear seat belts.

Before Driving Off-Road

- Have all necessary maintenance and service work completed.
- Fuel the vehicle, fill fluid levels, and check inflation pressure in all tires, including the spare, if equipped.
- Read all the information about all-wheel-drive vehicles in this manual.
- Make sure all underbody shields, if equipped, are properly attached.
- Know the local laws that apply to off-road driving.

To gain more ground clearance if needed, it may be necessary to remove the front fascia lower air dam. However, driving without the air dam reduces fuel economy.

Caution

Operating the vehicle for extended periods without the front fascia lower air dam installed can cause improper airflow to the engine. Reattach the front fascia air dam after off-road driving.

Loading the Vehicle for Off-Road Driving

⚠ Warning

- Unsecured cargo on the load floor can be tossed about when driving over rough terrain. You or your passengers can be struck by flying objects. Secure the cargo properly.
- Keep cargo in the cargo area as far forward and as low as possible. The heaviest things should be on the floor, forward of the rear axle.
- Heavy loads on the roof raise the vehicle's center of gravity, making it more likely to roll over. You can be seriously or fatally injured if the vehicle rolls over. Put heavy loads inside the cargo area, not on the roof.

(Continued)
Warning (Continued)

For more information about loading the vehicle, see *Vehicle Load Limits* ⇨ *220*.

Environmental Concerns

- Always use established trails, roads, and areas that have been set aside for public off-road recreational driving and obey all posted regulations.
- Do not damage shrubs, flowers, trees, or grasses or disturb wildlife.

- Do not park over things that burn. See *Parking over Things That Burn ⇨ 231*.

Driving on Hills

Driving safely on hills requires good judgment and an understanding of what the vehicle can and cannot do.

⚠ Warning

Many hills are simply too steep for any vehicle. Driving up hills can cause the vehicle to stall. Driving down hills can cause loss of control. Driving across hills can cause a rollover. You could be injured or killed. Do not drive on steep hills.

Before driving on a hill, assess the steepness, traction, and obstructions. If the terrain ahead cannot be seen, get out of the vehicle and walk the hill before driving further.

When driving on hills:

- Use a low gear and keep a firm grip on the steering wheel.
- Maintain a slow speed.
- When possible, drive straight up or down the hill.
- Slow down when approaching the top of the hill.
- Use headlamps even during the day to make the vehicle more visible.

⚠ Warning

Driving to the top of a hill at high speed can cause a crash. There could be a drop-off, embankment, cliff, or even another vehicle. You could be seriously injured or killed. As you near the top of a hill, slow down and stay alert.

- Never go downhill forward or backward with the transmission in N (Neutral). The brakes could overheat and you could lose control.
- When driving down a hill, keep the vehicle headed straight down. Use a low gear because the engine will work with the brakes to slow the vehicle and help keep the vehicle under control.

⚠ Warning

Heavy braking when going down a hill can cause your brakes to overheat and fade. This could cause loss of control and you or others could be injured or killed. Apply the brakes lightly when descending a hill and use a low gear to keep vehicle speed under control.

If the vehicle stalls on a hill:

1. Apply the brakes to stop the vehicle, and then apply the parking brake.

2. Shift into P (Park) and then restart the engine.
    - If driving uphill when the vehicle stalls, shift to R (Reverse), release the parking brake, and back straight down.
    - Never try to turn the vehicle around. If the hill is steep enough to stall the vehicle, it is steep enough to cause it to roll over.
    - If you cannot make it up the hill, back straight down the hill.
    - Never back down a hill in N (Neutral) using only the brake.
    - The vehicle can roll backward quickly and you could lose control.
    - If driving downhill when the vehicle stalls, shift to a lower gear, release the parking brake, and drive straight down the hill.
3. If the vehicle cannot be restarted after stalling, set the parking brake, shift the transmission into P (Park), and turn the vehicle off.
    - 3.1. Leave the vehicle and seek help.
    - 3.2. Stay clear of the path the vehicle would take if it rolled downhill.

- Avoid turns that take the vehicle across the incline of the hill. A hill that can be driven straight up or down might be too steep to drive across. Driving across an incline puts more weight on the downhill wheels which could cause a downhill slide or a rollover.
- Surface conditions can be a problem. Loose gravel, muddy spots, or even wet grass can cause the tires to slip sideways, downhill. If the vehicle slips sideways, it can hit something that will trip it – a rock, a rut, etc. – and roll over.
- Hidden obstacles can make the steepness of the incline more severe. If a rock is driven across with the uphill wheels, or if the downhill wheels drop into a rut or depression, the vehicle can tilt even more.
- If an incline must be driven across, and the vehicle starts to slide, turn downhill. This should help straighten out the vehicle and prevent the side slipping.

⚠ Warning

Getting out of the vehicle on the downhill side when stopped across an incline is dangerous. If the vehicle rolls over, you could be crushed or killed. Always get out on the uphill side of the vehicle and stay well clear of the rollover path.

Driving in Mud, Sand, Snow, or Ice

Use a low gear when driving in mud – the deeper the mud, the lower the gear. Keep the vehicle moving to avoid getting stuck.

Traction changes when driving on sand. On loose sand, such as on beaches or sand dunes, the tires tend to sink into the sand. This affects steering, accelerating, and braking. Drive at a reduced speed and avoid sharp turns or abrupt maneuvers.

Traction is reduced on hard packed snow and ice and it is easy to lose control. Reduce vehicle speed when driving on hard packed snow and ice.

⚠ Warning

Driving on frozen lakes, ponds, or rivers can be dangerous. Ice conditions vary greatly and the vehicle could fall through the ice; you and your passengers could drown. Drive your vehicle on safe surfaces only.

Driving in Water

⚠ Warning

Driving through rushing water can be dangerous. Deep water can sweep your vehicle downstream and you and your passengers could drown. If it is only shallow water, it can still wash away the ground from under your tires. Traction could be lost, and the vehicle could roll over. Do not drive through rushing water.

Caution

Do not drive through standing water if it is deep enough to cover the wheel hubs, axles, or exhaust pipe. Deep water can damage the axle and other vehicle parts.

If the standing water is not too deep, drive through it slowly. At faster speeds, water can get into the engine and cause it to stall. Stalling can occur if the exhaust pipe is under water. Do not turn off the ignition when driving through water. If the exhaust pipe is under water, the engine will not start. When going through water, the brakes get wet and it may take longer to stop. See *Driving on Wet Roads ⇨ 217*.

After Off-Road Driving

Remove any brush or debris that has collected on the underbody or chassis, or under the hood. These accumulations can be a fire hazard.

After operation in mud or sand, have the brake linings cleaned and checked. These substances can cause glazing and uneven braking. Check the body structure, steering, suspension, wheels, tires, and exhaust system for damage and check the fuel lines and cooling system for any leakage.

More frequent maintenance service is required. See *Maintenance Schedule* ⇨ *371*.

Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of driving conditions and avoid driving through large puddles and deep-standing or flowing water.

⚠ Warning

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

Flowing or rushing water creates strong forces. Driving through flowing water could cause the vehicle to be carried away. If this happens, you and other vehicle occupants could drown. Do not ignore police warnings and be very cautious about trying to drive through flowing water.

Hydroplaning

Hydroplaning is dangerous. Water can build up under the vehicle's tires so they actually ride on the water. This can happen if the road is wet enough and you are going fast enough. When the vehicle is hydroplaning, it has little or no contact with the road.

There is no hard and fast rule about hydroplaning. The best advice is to slow down when the road is wet.

Other Rainy Weather Tips

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Pass with caution.
- Keep windshield wiping equipment in good shape.
- Keep the windshield washer fluid reservoir filled.
- Have good tires with proper tread depth. See *Tires* ⇨ *324*.
- Turn off cruise control.
- Activate All-Wheel Drive (AWD) mode. See *Driver Mode Control* ⇨ *242*.

Hill and Mountain Roads

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Tips include:

- Keep the vehicle serviced and in good shape.
- Check all fluid levels and brakes, tires, cooling system, and transmission.
- Shift to a lower gear when going down steep or long hills.

> **⚠ Warning**
>
> Using the brakes to slow the vehicle on a long downhill slope can cause brake overheating, can reduce brake performance, and could result in a loss of braking. Shift the transmission to a lower gear to let the engine assist the brakes on a steep downhill slope.

> **⚠ Warning**
>
> Coasting downhill in N (Neutral) or with the ignition off is dangerous. This can cause overheating of the brakes and loss of steering assist. Always have the engine running and the vehicle in gear.

- Drive at speeds that keep the vehicle in its own lane. Do not swing wide or cross the center line.
- Be alert on top of hills; something could be in your lane (e.g., stalled car, crash).
- Pay attention to special road signs (e.g., falling rocks area, winding roads, long grades, passing or no-passing zones) and take appropriate action.
- Select All-Wheel Drive (AWD) Mode. See *Driver Mode Control* ⇨ *242* and *All-Wheel Drive* ⇨ *237*.

Winter Driving

Driving on Snow or Ice

Snow or ice between the tires and the road creates less traction or grip, so drive carefully. Wet ice can occur at about 0 °C (32 °F) when freezing rain begins to fall. Avoid driving on wet ice or in freezing rain until roads can be treated.

For Slippery Road Driving:

- Accelerate gently. Accelerating too quickly causes the wheels to spin and makes the surface under the tires slick.
- Turn on Traction Control. See *Traction Control/Electronic Stability Control* ⇨ *241*.
- The Antilock Brake System (ABS) improves vehicle stability during hard stops, but the brakes should be applied sooner than when on dry pavement. See *Antilock Brake System (ABS)* ⇨ *237*.

- Allow greater following distance and watch for slippery spots. Icy patches can occur on otherwise clear roads in shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering maneuvers and braking while on ice.
- Turn off cruise control.
- Select All-Wheel Drive (AWD) Mode for vehicles equipped with AWD. Select Snow/Ice Mode for FWD only vehicles. See *Driver Mode Control* ⇨ *242* and *All-Wheel Drive* ⇨ *237*.

Blizzard Conditions

Stop the vehicle in a safe place and signal for help. Stay with the vehicle unless there is help nearby.
If possible, use Roadside Assistance. See *Roadside Assistance Program* ⇨ *391*. To get help and keep everyone in the vehicle safe:

- Turn on the hazard warning flashers.
- Tie a red cloth to an outside mirror.

⚠ Warning

Snow can trap engine exhaust under the vehicle. This may cause exhaust gases to get inside. Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle is stuck in snow:

- Clear snow from the base of the vehicle, especially any blocking the exhaust pipe.
- Open a window about 5 cm (2 in) on the vehicle side that is away from the wind, to bring in fresh air.
- Fully open the air outlets on or under the instrument panel.

(Continued)

Warning (Continued)

- Adjust the climate control system to circulate the air inside the vehicle and set the fan speed to the highest setting. See “Climate Control Systems.”

For more information about CO, see *Engine Exhaust* ⇨ *232*.

To save fuel, run the engine for short periods to warm the vehicle and then shut the engine off and partially close the window. Moving about to keep warm also helps.

If it takes time for help to arrive, when running the engine, push the accelerator pedal slightly so the engine runs faster than the idle speed. This keeps the battery charged to restart the vehicle and to signal for help with the headlamps. Do this as little as possible, to save fuel.

If the Vehicle Is Stuck

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

If stuck too severely for the traction system to free the vehicle, turn the traction system off and use the rocking method. See *Traction Control/Electronic Stability Control* ⇨ *241*.

⚠ Warning

If the vehicle's tires spin at high speed, they can explode, and you or others could be injured. The vehicle can overheat, causing an engine compartment fire or other damage. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

Select All-Wheel Drive (AWD) Mode. See *Driver Mode Control* ⇨ *242* and *All-Wheel Drive* ⇨ *237*.

Rocking the Vehicle to Get it Out

Turn the steering wheel left and right to clear the area around the front wheels. Turn off any traction system. Shift back and forth between R (Reverse) and a low forward gear, spinning the wheels as little as possible. To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal when the transmission is in gear. Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If that does not get the vehicle out after a few tries, it might need to be towed out. If the vehicle does need to be towed out, see *Towing the Vehicle* ⇨ *356*.

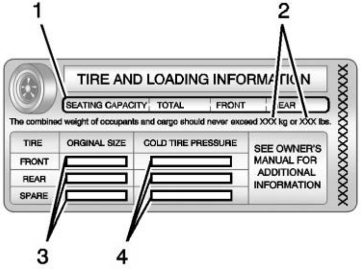
Vehicle Load Limits

It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all nonfactory-installed options. Two labels on the vehicle may show how much weight it may properly carry, the Tire and Loading Information label and the Certification/Tire label.

⚠ Warning

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could cause loss of control and a crash. Overloading can also reduce stopping distance, damage the tires, and shorten the life of the vehicle.

Tire and Loading Information Label


1
2
TIRE AND LOADING INFORMATION
SEATING CAPACITY
TOTAL
FRONT
REAR
The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.
TIRE
ORGINAL SIZE
COLD TIRE PRESSURE
FRONT
REAR
SPARE
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
XXXXXXXXXXXX
3
4

Example Label

A vehicle-specific Tire and Loading Information label is attached to the center pillar (B-pillar). The tire and loading information label shows the number of occupant seating positions (1), and the maximum vehicle capacity weight (2) in kilograms and pounds.

The Tire and Loading Information label also shows the size of the original equipment tires (3) and the recommended cold tire inflation pressures (4). For more information on tires and inflation see *Tires* ⇨ *324* and *Tire Pressure* ⇨ *331*.

There is also important loading information on the vehicle Certification/Tire label. It may show the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) for the front and rear axle. See “Certification/Tire Label” later in this section.

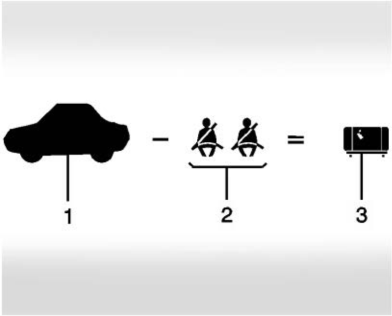
“Steps for Determining Correct Load Limit–

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle’s placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely

exceed the available cargo and luggage load capacity calculated in Step 4.

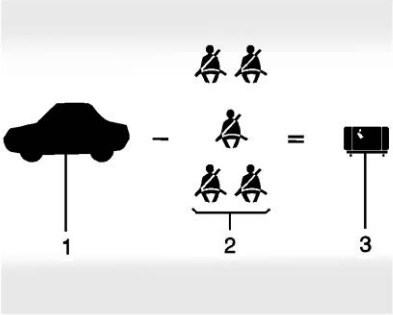
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.”

See *Trailer Towing* ⇨ *278* for important information on towing a trailer, towing safety rules and trailering tips.



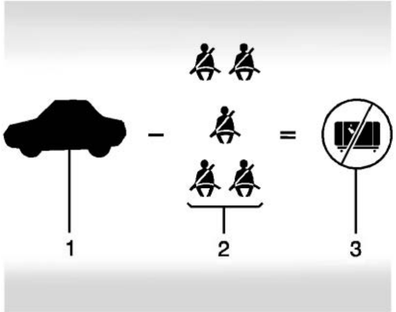
Example 1

1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 68 kg (150 lbs) × 2 = 136 kg (300 lbs).
3. Available Occupant and Cargo Weight = 317 kg (700 lbs).



Example 2

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 68 kg (150 lbs) × 5 = 340 kg (750 lbs).
3. Available Cargo Weight = 113 kg (250 lbs).

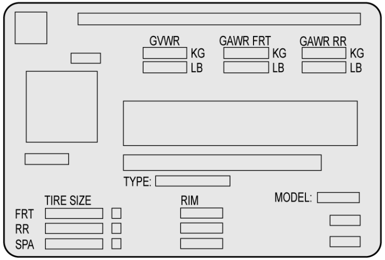


Example 3

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 91 kg (200 lbs) × 5 = 453 kg (1,000 lbs).
3. Available Cargo Weight = 0 kg (0 lbs).

Refer to the vehicle's tire and loading information label for specific information about the vehicle's capacity weight and seating positions. The combined weight of the driver, passengers, and cargo should never exceed the vehicle's capacity weight.

Certification/Tire Label



Label Example

A vehicle-specific Certification/ Tire label is attached to the center pillar (B-pillar).

The label may show the size of the vehicle's original tires and the inflation pressures needed to obtain the gross weight capacity of the vehicle. The label shows the gross weight capacity of the vehicle. This is called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel, and cargo.

The Certification/Tire label may also show the maximum weights for the front and rear axles, called the Gross Axle Weight Rating (GAWR). To find out the actual loads on the front and rear axles, weigh the vehicle at a weigh station. Your dealer can help with this. Be sure to spread the load equally on both sides of the centerline.

Caution

Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle.

⚠ Warning

Things inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- Put things in the cargo area of the vehicle. In the cargo area, put them as far forward as possible. Try to spread the weight evenly.
- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.

(Continued)

Warning (Continued)

- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

Starting and Operating

New Vehicle Break-In

Caution

The vehicle does not need an elaborate break-in. But it will perform better in the long run if you follow these guidelines:

- Do not drive at any one constant speed, fast or slow, for the first 800 km (500 mi). Do not make full-throttle starts. Avoid downshifting to brake or slow the vehicle.
- Avoid making hard stops for the first 300 km (200 mi) or so. During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this

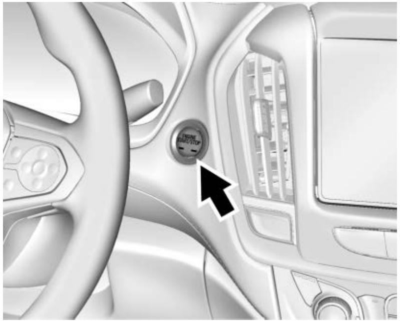
(Continued)

Caution (Continued)

breaking-in guideline every time you get new brake linings.

Following break-in, engine speed and load can be gradually increased.

Ignition Positions



This vehicle has pushbutton starting.

The Remote Keyless Entry (RKE) transmitter must be in the vehicle for the system to operate. If the pushbutton start is not working, the vehicle may be near a strong radio antenna signal causing interference to the Keyless Access system. See *Remote Keyless Entry (RKE) System Operation* ⇨ *30*.

To shift out of P (Park), the ignition must be on or in service mode and the brake pedal must be applied.

Stopping the Engine/OFF (No Indicator Lights) : When the vehicle is stopped, press ENGINE START/STOP once to turn the engine off.

If the vehicle is in P (Park), the ignition will turn off, and Retained Accessory Power (RAP) will remain active. See *Retained Accessory Power (RAP)* ⇨ *230*.

If the vehicle is not in P (Park), the ignition will return to ACC/ ACCESSORY and display the message SHIFT TO PARK in the Driver Information Center (DIC). When the vehicle is shifted into P (Park), the ignition will turn off.

Do not turn the engine off when the vehicle is moving. This will cause a loss of power assist in the brake and steering systems and disable the airbags.

If the vehicle must be shut off in an emergency:

1. Brake using a firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.
2. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
3. Come to a complete stop, shift to P (Park), and turn the ignition off. The shift lever must be in P (Park) to turn the ignition off.

4. Set the parking brake. See *Electric Parking Brake* ⇨ *238*.

⚠ Warning

Turning off the vehicle while moving may cause loss of power assist in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

If the vehicle cannot be pulled over, and must be shut off while driving, press and hold ENGINE START/ STOP for longer than two seconds, or press twice in five seconds.

ACC/ACCESSORY (Amber Indicator Light) : This mode allows some electrical accessories to be used when the engine is off.

With the ignition off, pressing the button one time without the brake pedal applied will place the ignition system in ACC/ACCESSORY.

The ignition will switch from ACC/ ACCESSORY to OFF after five minutes to prevent battery rundown.

ON/RUN/START (Green Indicator Light) : This mode is for driving and starting. With the ignition off, and the brake pedal applied, pressing the button once will place the ignition system in ON/RUN/START. Once engine cranking begins, release the button. Engine cranking will continue until the engine starts. See *Starting the Engine* ⇨ *226*. The ignition will then remain in ON/RUN.

Service Mode

This power mode is available for service and diagnostics, and to verify the proper operation of the malfunction indicator lamp as may be required for emission inspection purposes. With the vehicle off, and the brake pedal not applied, pressing and holding ENGINE START/STOP for more than five seconds will place the vehicle in Service Mode. The instruments and audio systems will operate as they do in ON/RUN, but the vehicle will not be able to be driven. The engine will not start in Service Mode. Press the button again to turn the vehicle off.

Starting the Engine

Move the shift lever to P (Park) or N (Neutral). The engine will not start in any other position. To restart the engine when the vehicle is already moving, use N (Neutral) only.

Caution

Do not try to shift to P (Park) if the vehicle is moving. If you do, you could damage the transmission. Shift to P (Park) only when the vehicle is stopped.

Caution

If you add electrical parts or accessories, you could change the way the engine operates. Any resulting damage would not be

(Continued)

Caution (Continued)

covered by the vehicle warranty. See *Add-On Electrical Equipment* ⇨ *286*.

Starting Procedure

1. With the Keyless Access system, the RKE transmitter must be in the vehicle. Press ENGINE START/STOP with the brake pedal applied. When the engine begins cranking, let go of the button.

   The idle speed will go down as the engine gets warm. Do not race the engine immediately after starting it.

   If the RKE transmitter is not in the vehicle, if there is interference, or if the RKE battery is low, the Driver Information Center (DIC) will display a message.

Caution

Cranking the engine for long periods of time, by returning the ignition to the START position immediately after cranking has ended, can overheat and damage the cranking motor, and drain the battery. Wait at least 15 seconds between each try, to let the cranking motor cool down.

2. If the engine does not start after five to 10 seconds, especially in very cold weather (below −18 °C or 0 °F), it could be flooded with too much gasoline. Try pushing the accelerator pedal all the way to the floor and holding it there as you press ENGINE START/STOP, for up to a maximum of 15 seconds. Wait at least 15 seconds between each try, to allow the cranking motor to cool down. When the engine starts, let go of the button and the accelerator. If the vehicle starts briefly but then stops again, do the same thing. This clears the extra gasoline from the engine. Do not race the engine immediately after starting it. Operate the engine and transmission gently until the oil warms up and lubricates all moving parts.

Stop/Start System

The Stop/Start system will shut off the engine to help conserve fuel. It has components designed for the increased number of starts.

⚠ Warning

The automatic engine Stop/Start feature causes the engine to shut off while the vehicle is still on. Do not exit the vehicle before shifting to P (Park). The vehicle may restart and move unexpectedly. Always shift to P (Park), and then turn the ignition off before exiting the vehicle.

Auto Engine Stop/Start

When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When stopped, the tachometer displays AUTO STOP. See *Tachometer ⇨ 138*. When the brake pedal is released or the accelerator pedal is pressed, the engine will restart.

To maintain vehicle performance, other conditions may cause the engine to automatically restart before the brake pedal is released.

Auto Stops may not occur and/or auto restarts may occur because:

- The climate control settings require the engine to be running to cool or heat the vehicle interior.
- The vehicle battery charge is low.
- The vehicle battery has recently been disconnected.
- Minimum vehicle speed has not been reached since the last Auto Stop.
- The accelerator pedal is pressed.
- The engine or transmission is not at the required operating temperature.
- The outside temperature is not in the required operating range.
- The vehicle is in any gear other than D (Drive).
- Tow/Haul Mode or other driver modes have been selected.
- The vehicle is on a steep hill or grade.
- The driver door has been opened or driver seat belt has been unbuckled.
- The hood has been opened.
- The Auto Stop has reached the maximum allowed time.

Engine Heater

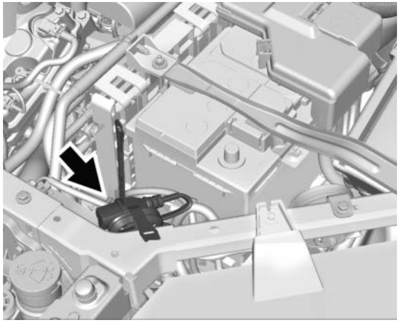
The engine heater can provide easier starting and better fuel economy during engine warm-up in cold weather conditions at or below 0 °F (−18 °C). Vehicles with an engine heater should be plugged in at least four hours before starting. Some models may have an internal thermostat in the cord which will prevent engine heater operation at temperatures above 0 °F (−18 °C).

⚠ Warning

Do not plug in the engine block heater while the vehicle is parked in a garage or under a carport. Property damage or personal injury may result. Always park the vehicle in a clear open area away from buildings or structures.

To Use the Engine Heater

1. Turn off the engine.



2. Open the hood and unwrap the electrical cord. The bundled cord is on the driver side of the engine compartment, in front of the battery. See *Engine Compartment Overview ⇨ 291*.

   Check the heater cord for damage. If it is damaged, do not use it. See your dealer for a replacement. Inspect the cord for damage yearly.

3. Plug the cord into a normal, grounded 110-volt AC outlet.

⚠ Warning

Improper use of the heater cord or an extension cord can damage the cord and may result in overheating and fire.

- Plug the cord into a three-prong electrical utility receptacle that is protected by a ground fault detection function. An ungrounded outlet could cause an electric shock.
- Use a weatherproof, heavy-duty, 15 amp-rated extension cord if needed. Failure to use the recommended extension cord in good operating condition, or using a damaged heater or extension cord, could make it overheat and cause a fire, property damage, electric shock, and injury.
- Do not operate the vehicle with the heater cord permanently attached to the vehicle. Possible heater cord and thermostat damage could occur.
- While in use, do not let the heater cord touch vehicle parts or sharp edges. Never close the hood on the heater cord.
- Before starting the vehicle, unplug the cord, reattach the cover to the plug, and securely fasten the cord. Keep the cord away from any moving parts.

4. Before starting the engine, be sure to unplug and store the cord as it was before to keep it away from moving engine parts. If you do not, it could be damaged.

The length of time the heater should remain plugged in depends on several factors. Ask a dealer in the area where you will be parking the vehicle for the best advice on this.

Retained Accessory Power (RAP)

Some vehicle accessories may be used after the ignition is turned off.

The power windows and sunroof, if equipped, will continue to work for up to 10 minutes or until any door is opened.

The infotainment system will continue to work for 10 minutes, until the driver door is opened, or until the ignition is turned on or placed in ACC/ACCESSORY.

Shifting Into Park

1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake* ⇨ *238*.
2. Move the shift lever into P (Park) by holding in the button on the shift lever and pushing the shift lever all the way toward the front of the vehicle.
3. Turn the ignition off.

Leaving the Vehicle with the Engine Running

⚠ Warning

It can be dangerous to leave the vehicle with the engine running. It could overheat and catch fire.

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly set. The vehicle can roll.

(Continued)

Warning (Continued)

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park* ⇨ *230*.
If you are towing a trailer, see *Driving Characteristics and Towing Tips* ⇨ *275*.

If you have to leave the vehicle with the engine running, be sure the vehicle is in P (Park) and the parking brake is set before you leave it. After you have moved the shift lever into P (Park), hold the regular brake pedal down. Then, see if you can move the shift lever away from P (Park) without first pressing the button.

If you can, it means that the shift lever was not fully locked in P (Park).

Torque Lock

Torque lock is when the weight of the vehicle puts too much force on the parking pawl in the transmission. This happens when parking on a hill and shifting the transmission into P (Park) is not done properly and then it is difficult to shift out of P (Park). To prevent torque lock, set the parking brake and then shift into P (Park). To find out how, see “Shifting Into Park” listed previously.

If torque lock does occur, your vehicle may need to be pushed uphill by another vehicle to relieve the parking pawl pressure, so you can shift out of P (Park).

Shifting out of Park

The vehicle is equipped with an electronic shift lock release system. The shift lock release is designed to prevent movement of the shift lever out of P (Park), unless the ignition is on or in Service Mode and the regular brake pedal is applied.

The shift lock release is always functional except in the case of an uncharged or low voltage (less than 9-volt) battery.

If the vehicle has an uncharged battery or a battery with low voltage, try charging or jump starting the battery. See *Jump Starting - North America* ⇨ *354*.

To shift out of P (Park):

1. Turn the ignition on.
2. Apply the brake pedal.
3. Press the shift lever button.
4. Move the shift lever to the desired position.

If you still are unable to shift out of P (Park):

1. Fully release the shift lever button.
2. While holding down the brake pedal, press the shift lever button again.
3. Move the shift lever to the desired position.

If you still cannot move the shift lever from P (Park), see your dealer.

Parking over Things That Burn

⚠ Warning

Things that can burn could touch hot exhaust parts under the vehicle and ignite. Do not park over papers, leaves, dry grass, or other things that can burn.

Extended Parking

It is best not to park with the vehicle running. If the vehicle is left running, be sure it will not move and there is adequate ventilation.

See *Shifting Into Park* ⇨ *230* and *Engine Exhaust* ⇨ *232*.

If the vehicle is left parked and running with the RKE transmitter outside the vehicle, it will continue to run for up to half an hour.

If the vehicle is left parked and running with the RKE transmitter inside the vehicle, it will continue to run for up to an hour.

The vehicle could turn off sooner if it is parked on a hill, due to lack of available fuel.

The timer will reset if the vehicle is taken out of P (Park) while it is running.

Engine Exhaust

⚠ Warning

Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. Exposure to CO can cause unconsciousness and even death.

Exhaust may enter the vehicle if:

- The vehicle idles in areas with poor ventilation (parking garages, tunnels, deep snow that may block underbody airflow or tail pipes).
- The exhaust smells or sounds strange or different.
- The exhaust system leaks due to corrosion or damage.
- The vehicle exhaust system has been modified, damaged, or improperly repaired.

(Continued)

Warning (Continued)

- There are holes or openings in the vehicle body from damage or aftermarket modifications that are not completely sealed.

If unusual fumes are detected or if it is suspected that exhaust is coming into the vehicle:

- Drive it only with the windows completely down.
- Have the vehicle repaired immediately.

Never park the vehicle with the engine running in an enclosed area such as a garage or a building that has no fresh air ventilation.

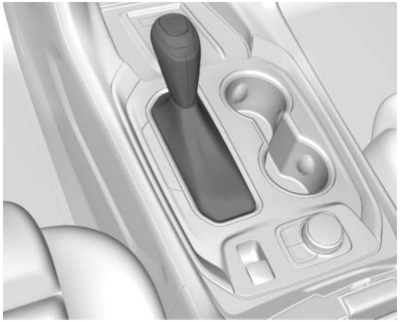
Running the Vehicle While Parked

It is better not to park with the engine running.

If the vehicle is left with the engine running, follow the proper steps to be sure the vehicle will not move. See *Shifting Into Park* ⇨ *230* and *Engine Exhaust* ⇨ *232*.

If parking on a hill and pulling a trailer, see *Driving Characteristics and Towing Tips* ⇨ *275*.

Automatic Transmission



P : This position locks the drive wheels. Use P (Park) when starting the engine because the vehicle cannot move easily.

⚠ Warning

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly set. The vehicle can roll.

(Continued)

Warning (Continued)

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park* ⇨ *230* and *Driving Characteristics and Towing Tips* ⇨ *275*.

Make sure the shift lever is fully in P (Park) before starting the engine. The vehicle has an automatic transmission shift lock control system. With the ignition on, fully apply the regular brake, then press the button on the shift lever before shifting from P (Park). If you cannot shift out of P (Park), ease pressure on the shift lever, then push the shift lever all the way into P (Park) as you maintain brake application. Then press the shift lever button and move the shift lever into another gear. See *Shifting out of Park* ⇨ *231*.

R : Use this gear to back up.

Caution

Shifting to R (Reverse) while the vehicle is moving forward could damage the transmission. The repairs would not be covered by the vehicle warranty. Shift to R (Reverse) only after the vehicle is stopped.

To rock the vehicle back and forth to get out of snow, ice, or sand without damaging the transmission, see *If the Vehicle Is Stuck* ⇨ *220*.

N : In this position, the engine does not connect with the wheels. To restart the engine when the vehicle is already moving, use N (Neutral) only.

⚠ Warning

Shifting into a drive gear while the engine is running at high speed is dangerous. Unless your foot is firmly on the brake pedal, the vehicle could move very rapidly. You could lose control and hit people or objects. Do not shift into a drive gear while the engine is running at high speed.

Caution

Shifting out of P (Park) or N (Neutral) with the engine running at high speed may damage the transmission. The repairs would not be covered by the vehicle warranty. Be sure the engine is not running at high speed when shifting the vehicle.

Caution

A transmission hot message may display if the automatic transmission fluid is too hot. Driving under this condition can damage the vehicle. Stop and idle the engine to cool the automatic transmission fluid. This message clears when the transmission fluid has cooled sufficiently.

D : This position is for normal driving. If more power is needed for passing, press the accelerator pedal down.

Caution

If the vehicle does not shift gears, the transmission could be damaged. Have the vehicle serviced right away.

If the vehicle is stopped on a hill, with your foot off the brake pedal, the vehicle may roll. This is normal and is due to the torque converter designed to improve fuel economy and performance. Use the brake to hold the vehicle on a hill. Do not use the accelerator pedal.

L : This position gives you access to gear ranges. This provides more engine braking but lower fuel economy than D (Drive). You can use it on very steep hills, or in deep snow or mud. See *Manual Mode* ⇨ *235*.

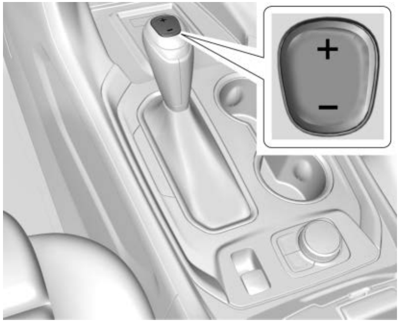
Operating Modes : The transmission may operate in a lower gear than normal to improve vehicle performance. The engine speed may be higher and there may be an increase in noise during the following conditions:

- When climbing a grade.
- When driving downhill.
- When driving in hot temperatures, or at high altitude.

Manual Mode

Electronic Range Select (ERS) Mode

ERS mode allows you to choose the top-gear limit of the transmission and the vehicle's speed while driving downhill or towing a trailer. The vehicle has an electronic shift position indicator within the instrument cluster. When using the ERS mode a number will display next to the L, indicating the highest gear available for the range selected.



To use this feature:

1. Press the shift lever button and move the shift lever to L (Low).
2. Press + (Plus) or − (Minus) on the shift lever to increase or decrease the gear range available.

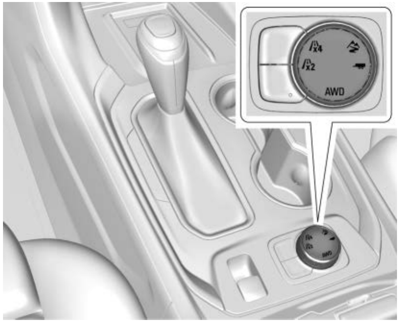
When you shift from D (Drive) to L (Low), the transmission will shift to a pre-determined lower gear range. The highest gear available for this pre-determined range is displayed next to the L in the DIC. See *Driver Information Center (DIC)* ⇨ *151*. The number displayed in the DIC is the highest gear that the transmission will be allowed to operate in. This means that all gears below that number are available. For example, when 4 (Fourth) is shown next to the L, 1 (First) through 4 (Fourth) gears are automatically shifted by the vehicle. The transmission will not shift into 5 (Fifth) until the + (Plus) button is used or you shift back into D (Drive).

If the transmission is in 6 (Sixth) gear when L (Low) is selected, a downshift to 4 (Fourth) will be commanded. If in 5 (Fifth) through 2 (Second) a single downshift will occur.

While in L (Low), the transmission will prevent shifting to a lower gear range if the engine speed is too high. You have a brief period of time to slow the vehicle. If vehicle speed is not reduced within the time allowed, the lower gear range shift will not be completed. You must further slow the vehicle, then press − (Minus) to the desired lower gear range.

Automatic Engine Grade Braking is not available when the ERS is active. It is available in D (Drive) for both normal driving and Tow/Haul Mode. While using the ERS, cruise control and the Tow/Haul Mode can be used. See "Tow/Haul Mode" following.

Tow/Haul Mode



This feature can assist when towing or hauling a heavy load.

: Select Tow/Haul Mode with the knob on the center console.

When Tow/Haul Mode is activated, there could be a message displayed on the Driver Information Center (DIC). See *Driving Characteristics and Towing Tips* ⇨ *275* and *Driver Mode Control* ⇨ *242*.

Automatic Engine Grade Braking

Automatic Engine Grade Braking assists when driving downhill. It maintains vehicle speed by automatically implementing a shift pattern that uses the engine and the transmission to slow the vehicle. The system will automatically command downshifts to reduce vehicle speed. The normal shift pattern will return once the vehicle is on a low grade or when the accelerator pedal is pressed.

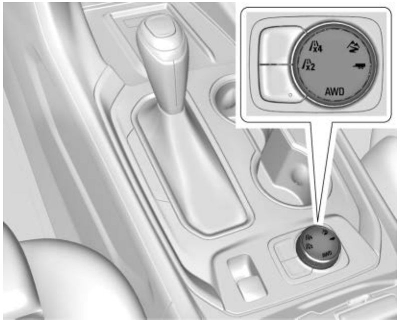
While in the Electronic Range Select (ERS) mode, grade braking is deactivated, allowing the driver to select a range and limiting the highest gear available. Grade braking is available for normal driving and in Tow/Haul Mode.

See *Automatic Transmission* ⇨ *233*.

Drive Systems

All-Wheel Drive

Vehicles with this feature can operate in All-Wheel Drive (AWD) Mode.



Turn the knob to x4 to select AWD.

The AWD Mode will stay selected until the mode is changed. See *Driver Mode Control* ⇨ *242*.

When operated in Two-wheel drive, the vehicle will deliver power to the front wheels only and may provide better fuel economy.

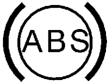
When using a compact spare tire on an AWD vehicle, the system automatically detects the compact spare and reduces AWD performance to protect the system. To restore full AWD operation and prevent excessive wear on the system, replace the compact spare with a full-size tire as soon as possible. See *Compact Spare Tire* ⇨ *353*.

Brakes

Antilock Brake System (ABS)

This vehicle has an Antilock Brake System (ABS), an advanced electronic braking system that helps prevent a braking skid.

When the vehicle begins to drive away, ABS checks itself. A momentary motor or clicking noise may be heard while this test is going on, and it may even be noticed that the brake pedal moves a little. This is normal.



If there is a problem with ABS, this warning light stays on. See *Antilock Brake System (ABS) Warning Light* ⇨ *145*.

If driving safely on a wet road and it becomes necessary to slam on the brakes and continue braking to avoid a sudden obstacle, a computer senses the wheels are slowing down. If one of the wheels is about to stop rolling, the computer will separately work the brakes at each wheel.

ABS can change the brake pressure to each wheel, as required, faster than any driver could. This can help you steer around the obstacle while braking hard.

As the brakes are applied, the computer keeps receiving updates on wheel speed and controls braking pressure accordingly.

Remember: ABS does not change the time needed to get a foot up to the brake pedal or always decrease stopping distance. If you get too close to the vehicle in front of you, there will not be enough time to apply the brakes if that vehicle suddenly slows or stops. Always leave enough room up ahead to stop, even with ABS.

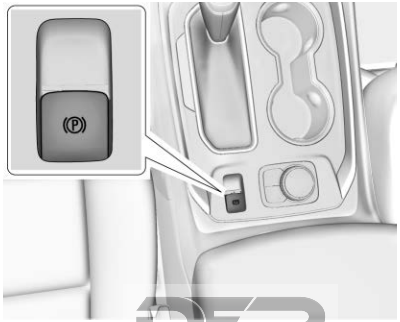
Using ABS

Do not pump the brakes. Just hold the brake pedal down firmly and let ABS work. You may hear the ABS pump or motor operating and feel the brake pedal pulsate. This is normal.

Braking in Emergencies

ABS allows you to steer and brake at the same time. In many emergencies, steering can help more than even the very best braking.

Electric Parking Brake



The vehicle has an Electric Parking Brake (EPB). The EPB can always be activated, even if the ignition is off. To prevent draining the battery, avoid repeated cycles of the EPB system when the engine is not running.

The system has a Ⓟ or PARK Electric Parking Brake light, and some vehicles may have a Ⓟ Service Parking Brake light. See *Electric Parking Brake Light* ⇨ *145* and *Service Electric Parking Brake Light* ⇨ *145*.

Before leaving the vehicle, check for the Ⓟ or PARK light to ensure that the parking brake is applied.

EPB Apply

To apply the EPB:

1. Be sure the vehicle is at a complete stop.
2. Lift up the EPB switch momentarily.

The Ⓟ or PARK light will flash and then stay on once the EPB is fully applied. If the Ⓟ or PARK light flashes continuously, then the EPB is only partially applied, the vehicle is in Service Mode, or there is a problem with the EPB. A Driver Information Center (DIC) message will display. Release the EPB and try to apply it again. If the light does not come on, or keeps flashing, have the vehicle serviced.

Do not drive the vehicle if the Ⓟ or PARK light is flashing. See your dealer. See *Electric Parking Brake Light* ⇨ *145*.

If the Ⓟ light is on or the Ⓟ or PARK light flashes when the ignition is turned on, pull the EPB switch and hold it. Continue to hold the switch until the Ⓟ or PARK light remains on. If the Ⓟ light remains on, see your dealer.

If the EPB is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is pulled. If the switch is pulled until the vehicle comes to a stop, the EPB will remain applied.

The vehicle may automatically apply the EPB in some situations when the vehicle is not moving. This is normal, and is done to periodically check the correct operation of the EPB system.

If the EPB fails to apply, block the rear wheels to prevent vehicle movement.

EPB Release

To release the EPB:

1. Turn the ignition on or to ACC/ ACCESSORY.
2. Apply and hold the brake pedal.
3. Press the EPB switch momentarily.

The EPB is released when the Ⓟ or PARK light is off.

If the Ⓟ light is on or the Ⓟ or PARK light flashes, release the EPB by pressing and holding the EPB switch. Continue to hold the switch until the Ⓟ or PARK light is off.
If either light stays on after release is attempted, see your dealer.

Caution

Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.

If parking on a hill, or if the vehicle is pulling a trailer, see *Driving Characteristics and Towing Tips* ⇨ *275*.

Automatic EPB Release

The EPB will automatically release if the vehicle is running, placed into gear, and an attempt is made to drive away. Avoid rapid acceleration when the EPB is applied, to preserve parking brake lining life.

Brake Assist

The Brake Assist feature is designed to assist the driver in stopping or decreasing vehicle speed in emergency driving conditions. This feature uses the stability system hydraulic brake control module to supplement the power brake system under conditions where the driver has quickly and forcefully applied the brake pedal in an attempt to quickly stop or slow down the vehicle. The stability system hydraulic brake control module increases brake pressure at each corner of the vehicle until the ABS activates. Minor brake pedal pulsation or pedal movement during this time is normal and the driver should continue to apply the brake pedal as the driving situation dictates. The Brake Assist feature will automatically disengage when the brake pedal is released or brake pedal pressure is quickly decreased.

Hill Start Assist (HSA)

Hill Start Assist (HSA) will activate when the vehicle is stopped on a moderate to steep grade to help prevent it from rolling in an unintended direction. After the brake pedal has been released and before the accelerator pedal has been pressed, HSA uses braking pressure to hold the vehicle stationary. If HSA is holding the vehicle, a DIC message displays. HSA will not activate in a forward drive gear when facing downhill, or in R (Reverse) when facing uphill.

Select the duration of the HSA feature through vehicle personalization. See ”Extended Hill Start Assist” under “Comfort and Convenience” in *Vehicle Personalization* ⇨ *155*. When Standard Hold is selected, the vehicle is held stationary for up to two seconds after the brake pedal is released. When Extended Hold is selected, the vehicle is held stationary for up to five minutes after the brake pedal is released. In either case, override the hold feature by pressing the accelerator pedal and attempting to drive away.

If Standard Hold is selected, it will hold the vehicle for two seconds unless the driver door is opened or the driver seat belt is unbuckled after releasing the brake pedal. If Extended Hold is selected, it will hold the vehicle for five minutes unless the driver door is opened and the driver seat belt is unbuckled prior to releasing the brake pedal. When deactivated after five minutes, or if it is deactivated when the driver seat belt is unlatched or the driver door is opened, the Electric Parking Brake will engage to prevent vehicle movement.

Ride Control Systems

Traction Control/ Electronic Stability Control

System Operation

The vehicle has a Traction Control System (TCS) and StabiliTrak/ Electronic Stability Control (ESC), an electronic stability control system. These systems help limit wheel slip and assist the driver in maintaining control, especially on slippery road conditions.

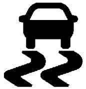
TCS activates if it senses that any of the drive wheels are spinning or beginning to lose traction. When this happens, TCS applies the brakes to the spinning wheels and reduces engine power to limit wheel spin.

StabiliTrak/ESC activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually traveling. StabiliTrak/ESC selectively applies braking pressure to any one of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

If cruise control is being used and TCS or StabiliTrak/ESC begins to limit wheel spin, cruise control will disengage. Cruise control may be turned back on when road conditions allow. TCS and StabiliTrak/ESC will automatically turn on when cruise control is set.

Both systems come on automatically when the vehicle is started and begins to move. The systems may be heard or felt while they are operating or while performing diagnostic checks. This is normal and does not mean there is a problem with the vehicle.

It is recommended to leave both systems on for normal driving conditions, but it may be necessary to turn TCS off if the vehicle gets stuck in sand, mud, ice, or snow. See *If the Vehicle Is Stuck ⇨ 220* and “Turning the Systems Off and On” later in this section.



The indicator light for both systems is in the instrument cluster. This light will:

- Flash when TCS is limiting wheel spin.
- Flash when StabiliTrak/ESC is activated.
- Turn on and stay on when either system is not working.

If either system fails to turn on or to activate, a message displays in the Driver Information Center (DIC), and ⛐ comes on and stays on to indicate that the system is inactive and is not assisting the driver in maintaining control. The vehicle is safe to drive, but driving should be adjusted accordingly.

If ⛐ comes on and stays on:

1. Stop the vehicle.

2. Turn the engine off and wait 15 seconds.
3. Start the engine.
4. Drive the vehicle.

If comes on and stays on, see your dealer.

Turning the Systems Off and On

OFF

Caution

Do not repeatedly brake or accelerate heavily when TCS is off. The vehicle driveline could be damaged.

To turn off only TCS, press and release OFF on the center console. The Traction Off light TC displays in the instrument cluster.

To turn TCS on again, press and release OFF. The Traction Off light TC displayed in the instrument cluster will turn off.

If TCS is limiting wheel spin when OFF is pressed, the system will not turn off until the wheels stop spinning.

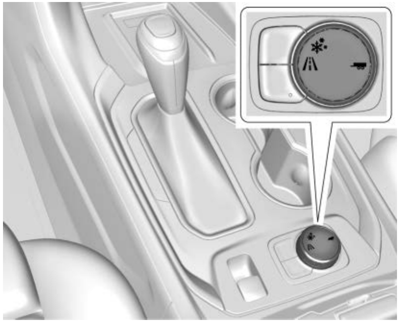
To turn off both TCS and StabiliTrak/ESC, press and hold OFF until the Traction Off light TC and StabiliTrak/ESC OFF light OFF come on and stay on in the instrument cluster.

To turn TCS and StabiliTrak/ESC on again, press and release OFF. The Traction Off light TC and StabiliTrak/ESC OFF light OFF in the instrument cluster turn off.

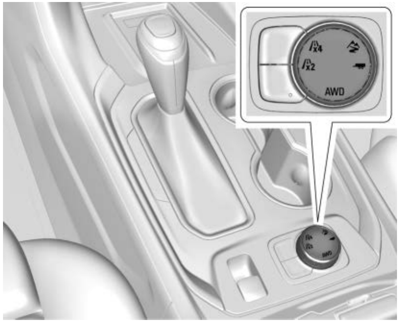
Adding accessories can affect the vehicle performance. See *Accessories and Modifications ⇨ 289*.

Driver Mode Control

If equipped with Front-Wheel Drive (FWD), the Driver Mode Control may have the following modes: FWD, Snow, and Tow/Haul.
If equipped with All-Wheel Drive (AWD), the Driver Mode Control may have AWD, Two-Wheel Drive (2WD), Off-Road, and Tow/Haul.
There may be Driver Information Center (DIC) messages displayed for each drive mode.



Driver Mode Control Knob for FWD



Driver Mode Control Knob for AWD

Rotate the Driver Mode Control knob to make a mode selection. The icons on the knob will illuminate to indicate which mode is active.
A Driver Information Center (DIC) message will indicate that the mode is on when switching to different modes.

x2 (AWD Only) or (FWD Only) : Vehicle is in either Front-Wheel Drive for non AWD vehicles, or Two-Wheel Drive for AWD vehicles. This mode will remain active through future ignition cycles. This setting either puts the vehicle in Two-Wheel Drive (AWD vehicles) or is the normal drive mode (FWD vehicles). Use this mode for normal driving conditions. This is the most fuel efficient drive mode. See *Driving for Better Fuel Economy* ⇨ *27*.

x4 (AWD Only) : Vehicle is in AWD Mode. This mode will remain active through future ignition cycles. AWD Mode provides drive torque to all four wheels. Use this mode for driving conditions that require improved traction such as gravel, sand, wet pavement, snow, and ice. AWD may turn off and display a message on the DIC in instances of extensive use or overheating.

When in AWD Mode, the AWD Mode indicator will be on. For more information on AWD Mode, see *All-Wheel Drive* ⇨ *237*.

❄ (FWD Only) : Vehicle is in Snow Mode. This mode will not remain active through future ignition cycles. The vehicle will be in Front-Wheel Drive when the engine is restarted. Snow Mode improves vehicle acceleration on snow and ice covered roads. The accelerator pedal will be more sensitive to provide finer control of the torque at the wheels in slippery conditions.

(AWD Only) : Vehicle is in Off-Road Mode. This mode will not remain active through future ignition cycles. The vehicle will be in Two-Wheel Drive when the engine is restarted. This mode will automatically activate AWD. The accelerator pedal will be more sensitive to provide finer control of the torque at the wheels. StabiliTrak/ESC, ABS, and TCS will change for optimal off-road performance. Use this mode for public off-road recreational driving. See *Off-Road Driving* ⇨ *212*.

Tow/Haul : Vehicle is in Tow/Haul Mode. This mode will not remain active through future ignition cycles. The vehicle will be in Front-Wheel Drive or Two-Wheel Drive when the engine is restarted. This mode will automatically activate AWD. See *All-Wheel Drive* ⇨ *237*. The transmission holds lower gears longer before shifting to provide more torque necessary when towing heavy loads. This will also increase fuel consumption. Use this mode to assist in maintaining desired vehicle speeds when driving on downhill grades by using the engine and transmission to slow the vehicle. This helps prevent the brakes from overheating. For more information, see *Tow/Haul Mode* ⇨ *236*.

The following table shows how the different modes affect the various subsystem functions that may be on the vehicle.

Modes:	**Front-Wheel Drive/ Two-Wheel Drive**	**AWD**	**Snow**	**Off-Road**	**Tow/Haul**
Mode Availability	AWD & FWD Vehicles	AWD Vehicles Only	FWD Vehicles Only	AWD Vehicles Only	Towing Package (AWD & FWD)
Retained In Future Ignition Cycles	Yes	Yes	No	No	No
Accelerator Pedal Sensitivity	Normal	Normal	Snow	Off-Road	Normal
Automatic Transmission Shifting	Normal	Normal	Normal	Normal	Tow/Haul
AWD Status (If Equipped)	Off (Two-Wheel Drive)	Normal AWD Active	Not Available	Off-Road AWD Active	Normal AWD Active
StabiliTrak/ESC, ABS, and TCS	Normal	Normal	Normal	Off-Road	Normal

Cruise Control

⚠ Warning

Cruise control can be dangerous where you cannot drive safely at a steady speed. Do not use cruise control on winding roads or in heavy traffic.

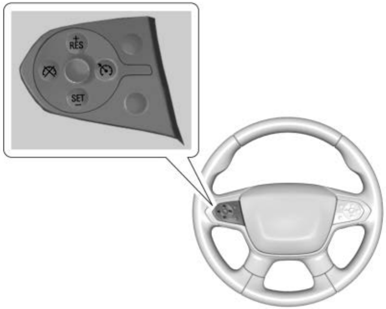
Cruise control can be dangerous on slippery roads. On such roads, fast changes in tire traction can cause excessive wheel slip, and you could lose control. Do not use cruise control on slippery roads.

With cruise control, a speed of about 40 km/h (25 mph) or more can be maintained without keeping your foot on the accelerator. Cruise control does not work at speeds below about 40 km/h (25 mph).

If the Traction Control System (TCS) or StabiliTrak/Electronic Stability Control (ESC) system begins to limit wheel spin while using cruise control, the cruise control automatically disengages. See *Traction Control/Electronic Stability Control ⇨ 241*. If a collision alert occurs when cruise control is activated, cruise control is disengaged. See *Forward Collision Alert (FCA) System ⇨ 261*. When road conditions allow the cruise control to be safely used, cruise control can be turned back on.

Turning off the TCS or StabiliTrak/ESC system will disengage the cruise control.

If the brakes are applied, cruise control disengages.



: Press to turn the system on and off. A white indicator appears in the instrument cluster when cruise is turned on.

RES+ : If there is a set speed in memory, press briefly to resume to that speed or press and hold to accelerate. If the cruise control is already active, use to increase vehicle speed.

SET− : Press briefly to set the speed and activate cruise control. If the cruise control is already active, use to decrease vehicle speed.

⊗ : Press to disengage cruise control without erasing the set speed from memory.

Setting Cruise Control

If ◴ is on when not in use, SET− or RES+ could get pressed and go into cruise when not desired. Keep ◴ off when cruise is not being used.

1. Press ◴.
2. Get up to the desired speed.
3. Press and release SET−. The desired set speed briefly appears in the instrument cluster.
4. Remove your foot from the accelerator.

When the cruise control has been set to the desired speed, a green cruise control indicator appears on the instrument cluster.

Resuming a Set Speed

If the cruise control is set at a desired speed and then the brakes are applied or ⊗ is pressed, the cruise control is disengaged without erasing the set speed from memory.

Once the vehicle speed reaches about 40 km/h (25 mph) or more, press RES+ briefly. The vehicle returns to the previous set speed.

Increasing Speed While Using Cruise Control

If the cruise control system is already activated:

- Press and hold RES+ up until the desired speed is reached, then release it.
- To increase vehicle speed in small increments, briefly press RES+. For each press, the vehicle goes about 1 km/h (1 mph) faster.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster ⇨ 135*. The increment value used depends on the units displayed.

Reducing Speed While Using Cruise Control

If the cruise control system is already activated:

- Press and hold SET− until the desired lower speed is reached, then release it.
- To decrease the vehicle speed in small increments, briefly press SET−. For each press, the vehicle goes about 1 km/h (1 mph) slower.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster ⇨ 135*. The increment value used depends on the units displayed.

Passing Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase the vehicle speed. When you take your foot off the pedal, the vehicle will slow down to the previous set cruise speed.

While pressing the accelerator pedal or shortly following the release to override cruise, briefly applying SET− will result in cruise set to the current vehicle speed.

Using Cruise Control on Hills

How well the cruise control will work on hills depends upon the vehicle speed, load, and the steepness of the hills. When going up steep hills, you might have to step on the accelerator pedal to maintain your speed. While on a hill, the transmission may downshift in order to use engine braking to slow the vehicle and maintain the set speed. Also, you may have to brake or shift to a lower gear to keep your speed down. If the brake pedal is applied, cruise control disengages.

Ending Cruise Control

There are four ways to end cruise control:

- Step lightly on the brake pedal.
- Press .
- Shift the transmission to N (Neutral).
- Press .

Erasing Speed Memory

The cruise control set speed is erased from memory if is pressed or if the ignition is turned off.

Adaptive Cruise Control

If equipped with Adaptive Cruise Control (ACC), it allows the driver to select the cruise control set speed and following gap. Read this entire section before using this system. The following gap is the following time between your vehicle and a vehicle detected directly ahead in your path, moving in the same direction. If no vehicle is detected in your path, ACC works like regular cruise control. ACC uses camera and radar sensors. See *Radio Frequency Statement* ⇨ *397*.

If a vehicle is detected in your path, ACC can apply acceleration or limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If ACC is controlling your vehicle speed when the Traction Control System (TCS) or StabiliTrak/ Electronic Stability Control (ESC) system activates, the ACC may automatically disengage. See *Traction Control/Electronic Stability Control* ⇨ *241*. When road conditions allow ACC to be safely used, the ACC can be turned back on.

Turning off the TCS or StabiliTrak/ ESC system will disengage the cruise control.

⚠ Warning

ACC has limited braking ability and may not have time to slow the vehicle down enough to avoid a collision with another vehicle you are following. This can occur when vehicles suddenly slow or stop ahead, or enter your lane. Also see “Alerting the Driver” in

(Continued)

Warning (Continued)

this section. Complete attention is always required while driving and you should be ready to take action and apply the brakes. See *Defensive Driving* ⇨ *210*.

⚠ Warning

ACC will not detect or brake for children, pedestrians, animals, or other objects.

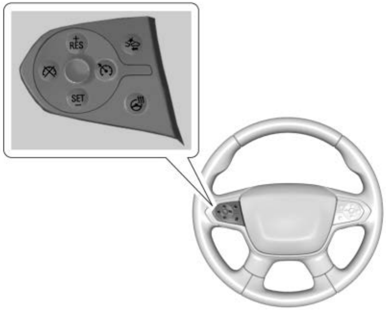
Do not use ACC when:

- On winding and hilly roads or when the sensors are blocked by snow, ice, or dirt. The system may not detect a vehicle ahead. Keep the entire front of the vehicle clean.

(Continued)

Warning (Continued)

- Visibility is low, such as in fog, rain, or snow conditions. ACC performance is limited under these conditions.
- On slippery roads where fast changes in tire traction can cause excessive wheel slip.



: Press to turn the system on or off. The indicator turns white on the instrument cluster when ACC is turned on.

RES+ : Press briefly to resume the previous set speed or to increase vehicle speed. If ACC is already activated, use to increase vehicle speed.

SET– : Press briefly to set the speed and activate ACC or to decrease vehicle speed. If ACC is already activated, use to decrease vehicle speed.

: Press to disengage ACC without erasing the selected set speed.

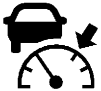
: Press to select a following gap time (or distance) setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster* ⇨ *135*. The increment value used depends on the units displayed.

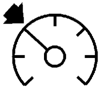
Switching Between ACC and Regular Cruise Control

To switch between ACC and regular cruise control, press and hold . A Driver Information Display (DIC) message displays. See *Vehicle Messages* ⇨ *154*.

ACC can also be set while the vehicle is stopped if ACC is on and the brake pedal is applied.



ACC Indicator



Regular Cruise Control Indicator

When ACC is engaged, a green indicator will be lit on the instrument cluster and the following gap will be displayed. When the regular cruise control is engaged, a green indicator will be lit on the instrument cluster; the following gap will not display.

When the vehicle is turned on, the cruise control mode will be set to the last mode used before the vehicle was turned off.

> ⚠ **Warning**
>
> Always check the cruise control indicator on the instrument cluster to determine which mode cruise control is in before using the feature. If ACC is not active, the vehicle will not automatically brake for other vehicles, which could cause an accident if the brakes are not applied manually. You and others could be seriously injured or killed.

Setting Adaptive Cruise Control

If is on when not in use, it could get pressed and go into cruise when not desired. Keep off when cruise is not being used.

Select the set speed desired for cruise. This is the vehicle speed when no vehicle is detected in its path.

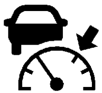
While the vehicle is moving, ACC will not set at a speed less than 25 km/h (16 mph), although it can be resumed when driving at lower speeds.

To set ACC while moving:

1. Press .
2. Get up to the desired speed.
3. Press and release SET–.
4. Remove foot from the accelerator.

After ACC is set, it may immediately apply the brakes if a vehicle ahead is detected closer than the selected following gap.

ACC can also be set while the vehicle is stopped if ACC is on and the brake pedal is applied.



The ACC indicator displays on the instrument cluster. When ACC is turned on, the indicator will be lit white.

Be mindful of speed limits, surrounding traffic speeds, and weather conditions when selecting the set speed.

Resuming a Set Speed

If the ACC is set at a desired speed and then the brakes are applied, ACC is disengaged without erasing the set speed from memory.

To begin using ACC again, press RES+ up briefly. The vehicle returns to the previous set speed.

- If the vehicle is moving, it returns to the previous set speed.
- If the vehicle is stopped with the brake pedal applied, press RES+ and release the brake pedal. ACC will hold the vehicle until RES+ or the accelerator pedal is pressed.

A green ACC indicator and the set speed display on the instrument cluster. The vehicle ahead indicator may be flashing if a vehicle ahead was present and moved. See "Approaching and Following a Vehicle" later in this section.

Once ACC has resumed, if there is no vehicle ahead, if the vehicle ahead is beyond the selected following gap, or if the vehicle has exited a sharp curve, then the vehicle speed will increase to the set speed.

Increasing Speed While ACC Is at a Set Speed

Do one of the following:

- Use the accelerator to get to the higher speed. Press SET– . Release the control and the accelerator pedal. The vehicle will now cruise at the higher speed.

  When the accelerator pedal is pressed, ACC will not brake because it is overridden. The ACC indicator will turn blue on the instrument cluster.
- Press and hold RES+ until the desired set speed appears on the display, then release it.
- To increase vehicle speed in small increments, press RES+. For each press, the vehicle goes 1 km/h (1 mph) faster.

When it is determined that there is no vehicle ahead or the vehicle ahead is beyond the selected following gap, then the vehicle speed will increase to the set speed.

The set speed can also be increased while the vehicle is stopped.

- If stopped with the brake applied, press RES+ until the desired set speed is displayed.
- If ACC is holding the vehicle at a stop and there is another vehicle directly ahead, pressing RES+ will increase the set speed.

Pressing RES+ when there is no longer a vehicle ahead will cause ACC to resume.

Reducing Speed While ACC Is at a Set Speed

Do one of the following:

- Use the brake to get to the desired lower speed. Release the brake and press SET–. The vehicle will now cruise at the lower speed.
- Press and hold SET– until the desired lower speed is reached, then release it.
- To decrease the vehicle speed in smaller increments, press SET−. For each press, the vehicle goes about 1 km/h (1 mph) slower.
- To decrease speed while the vehicle is stopped, press SET− until the desired set speed is displayed.

Selecting the Follow Distance Gap

When a slower moving vehicle is detected ahead within the selected following gap, ACC will adjust the vehicle's speed and attempt to maintain the follow distance gap selected.

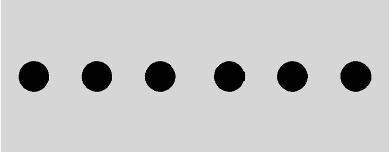
Press on the steering wheel to adjust the following gap. Each press cycles the gap button through three settings: Far, Medium, or Near.

When pressed, the current gap setting displays briefly on the instrument cluster. The gap setting will be maintained until it is changed.

Since each gap setting corresponds to a following time (Far, Medium, or Near), the following distance will vary based on vehicle speed. The faster the vehicle speed, the further back your vehicle will follow a vehicle detected ahead. Consider traffic and weather conditions when selecting the following gap. The range of selectable gaps may not be appropriate for all drivers and driving conditions.

Changing the gap setting automatically changes the alert timing sensitivity (Far, Medium, or Near) for the Forward Collision Alert (FCA) feature. See *Forward Collision Alert (FCA) System ⇨ 261*.

Alerting the Driver

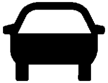


If ACC is engaged, driver action may be required when ACC cannot apply sufficient braking because of approaching a vehicle too rapidly.

When this condition occurs, six red lights will flash on the windshield and eight beeps will sound from the front. See “Collision/Detection Systems” under *Vehicle Personalization ⇨ 155*.

See *Defensive Driving ⇨ 210*.

Approaching and Following a Vehicle



The vehicle ahead indicator is in the instrument cluster.

The vehicle ahead indicator only displays when a vehicle is detected in your vehicle's path moving in the same direction.

If this symbol is not displaying, ACC will not respond to or brake for vehicles ahead.

ACC automatically slows the vehicle down and adjusts vehicle speed to follow the vehicle in front at the selected follow gap. The vehicle speed increases or decreases to follow the vehicle in front of you, but will not exceed the set speed. It may apply limited braking, if necessary. When braking is active, the brake lights will come on. The automatic braking may feel or sound different than if the brakes were applied manually. This is normal.

Stationary or Very Slow-Moving Objects

> **⚠ Warning**
>
> ACC may not detect and react to stopped or slow-moving vehicles ahead of you. For example, the system may not brake for a vehicle it has never detected moving. This can occur in stop-and-go traffic or when a vehicle suddenly appears due to a vehicle ahead changing lanes. Your vehicle may not stop and could cause a crash. Use caution when using ACC. Your complete attention is always required while driving and you should be ready to take action and apply the brakes.

ACC Automatically Disengages

ACC may automatically disengage and the driver will need to manually apply the brakes to slow the vehicle if:

- The sensors are blocked.
- The Traction Control System (TCS) or StabiliTrak/ESC system has activated or been disabled.
- There is a fault in the system.
- The radar falsely reports blockage when driving in a desert or remote area with no other vehicle or roadside objects. A DIC message may display to indicate that ACC is temporarily unavailable.

The ACC indicator will turn white when ACC is no longer active.

In some cases, when ACC will not activate, regular cruise control may be used. See "Switching Between ACC and Regular Cruise Control" previously in this section. Always consider driving conditions before using either cruise control system.

Notification to Resume ACC

ACC will maintain a follow gap behind a detected vehicle and slow your vehicle to a stop behind that vehicle.

If the stopped vehicle ahead has driven away and ACC has not resumed, the vehicle ahead indicator will flash and three beeps will sound as a reminder to check traffic ahead before proceeding. See "Adaptive Cruise Go Notifier" in "Collision/Detection Systems" under *Vehicle Personalization* ⇨ *155*.

When the vehicle ahead drives away, press RES+ or the accelerator pedal to resume ACC. If stopped for more than two minutes or if the driver door is opened and the driver seat belt is unbuckled, the ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The Electric Parking Brake status light will turn on. See *Electric Parking Brake* ⇨ *238*. To resume ACC and release the EPB, press the accelerator pedal.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle. See *Vehicle Messages* ⇨ *154*.

⚠ Warning

If ACC has stopped the vehicle, and if ACC is disengaged, turned off, or canceled, the vehicle will no longer be held at a stop. The vehicle can move. When ACC is holding the vehicle at a stop, always be prepared to manually apply the brakes.

⚠ Warning

Leaving the vehicle without placing it in P (Park) can be dangerous. Do not leave the vehicle while it is being held at a stop by ACC. Always place the vehicle in P (Park) and turn off the ignition before leaving the vehicle.

ACC Override

If using the accelerator pedal while ACC is active, the ACC indicator turns blue on the instrument cluster. ACC will resume operation when the accelerator pedal is not being pressed.

⚠ Warning

The ACC will not automatically apply the brakes if your foot is resting on the accelerator pedal. You could crash into a vehicle ahead of you.

Curves in the Road

⚠ Warning

On curves, ACC may not detect a vehicle ahead in your lane. You could be startled if the vehicle accelerates up to the set speed, especially when following a vehicle exiting or entering exit ramps. You could lose control of

(Continued)

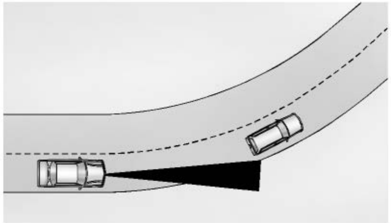
Warning (Continued)

the vehicle or crash. Do not use ACC while driving on an entrance or exit ramp. Always be ready to use the brakes if necessary.

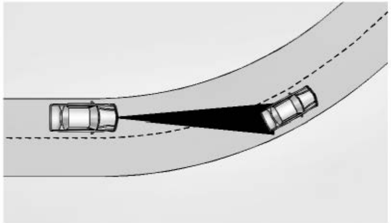
⚠ Warning

On curves, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in curves and be ready to use the brakes if necessary. Select an appropriate speed while driving in curves.

ACC may operate differently in a sharp curve. It may reduce the vehicle speed if the curve is too sharp.



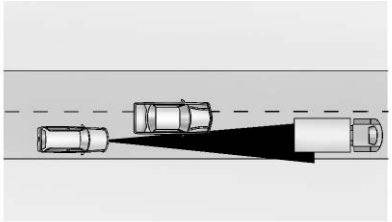
When following a vehicle and entering a curve, ACC may not detect the vehicle ahead and accelerate to the set speed. When this happens, the vehicle ahead indicator will not appear.



ACC may detect a vehicle that is not in your lane and apply the brakes.

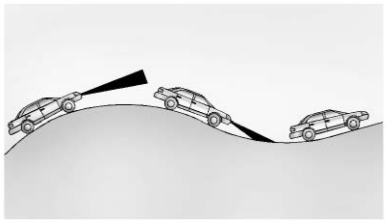
ACC may occasionally provide an alert and/or braking that is considered unnecessary. It could respond to vehicles in different lanes, signs, guardrails, and other stationary objects when entering or exiting a curve. This is normal operation. The vehicle does not need service.

Other Vehicle Lane Changes



ACC will not detect a vehicle ahead until it is completely in the lane. The brakes may need to be manually applied.

Do Not Use ACC on Hills and When Towing a Trailer



Do not use ACC when driving on steep hills or when towing a trailer. ACC will not detect a vehicle in the lane while driving on steep hills. The driver will often need to take over acceleration and braking on steep hills, especially when towing a trailer. If the brakes are applied, the ACC disengages.

Disengaging ACC

There are three ways to disengage ACC:

- Step lightly on the brake pedal.
- Press .
- Press .

Erasing Speed Memory

The cruise control set speed is erased from memory if is pressed or if the ignition is turned off.

Cleaning the Sensing System

The camera sensor on the windshield behind the rearview mirror and the radar sensors on the front of the vehicle can become blocked by snow, ice, dirt, or mud. These areas need to be cleaned for ACC to operate properly.

If ACC will not operate, regular cruise control may be available. See “Switching Between ACC and Regular Cruise Control” previously in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see “Washing the Vehicle” under *Exterior Care* ⇨ *360*.

System operation may also be limited under snow, heavy rain, or road spray conditions.

Driver Assistance Systems

This vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, backing, and parking. Read this entire section before using these systems.

> ⚠ **Warning**
>
> Do not rely on the Driver Assistance Systems. These systems do not replace the need for paying attention and driving safely. You may not hear or see alerts or warnings provided by these systems. Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ⇨ *210*.
>
> (Continued)

Warning (Continued)

Under many conditions, these systems will not:

- Detect children, pedestrians, bicyclists, or animals.
- Detect vehicles or objects outside the area monitored by the system.
- Work at all driving speeds.
- Warn you or provide you with enough time to avoid a crash.
- Work under poor visibility or bad weather conditions.
- Work if the detection sensor is not cleaned or is covered by ice, snow, mud, or dirt.
- Work if the detection sensor is covered up, such as with a sticker, magnet, or metal plate.

(Continued)

Warning (Continued)

- Work if the area surrounding the detection sensor is damaged or not properly repaired.

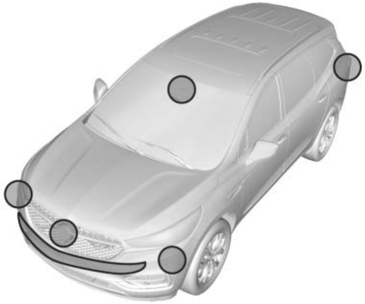
Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

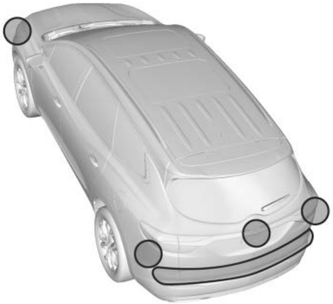
Audible Alert

Some driver assistance features alert the driver of obstacles by beeping. To change the volume of the warning chime, see “Comfort and Convenience” under *Vehicle Personalization ⇨ 155*.

Cleaning

Depending on vehicle options, keep these areas of the vehicle clean to ensure the best driver assistance feature performance. Driver Information Center (DIC) messages may display when the systems are unavailable or blocked.





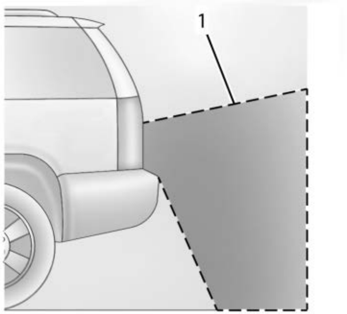
- Front and rear bumpers and the area below the bumpers
- Front grille and headlamps
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirrors
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate

Assistance Systems for Parking or Backing

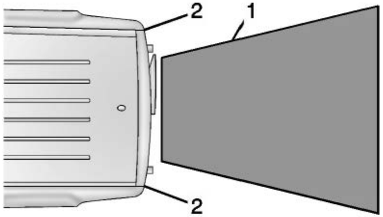
If equipped, the Rear Vision Camera (RVC), Rear Park Assist (RPA), Surround Vision, and Rear Cross Traffic Alert (RCTA) may help the driver park or avoid objects. Always check around the vehicle when parking or backing.

Rear Vision Camera (RVC)

When the vehicle is shifted into R (Reverse), the RVC displays an image of the area behind the vehicle in the infotainment display. The previous screen displays when the vehicle is shifted out of R (Reverse) after a short delay. To return to the previous screen sooner, press any button on the infotainment display, shift into P (Park), or reach a vehicle speed of approximately 12 km/h (8 mph). Select Guidance Lines on the infotainment display to enable or disable the guidance lines.



1. View Displayed by the Rear Vision Camera



1. View Displayed by the Rear Vision Camera
2. Corners of the Rear Bumper

Displayed images may be farther or closer than they appear. The area displayed is limited and objects that are close to either corner of the bumper or under the bumper do not display.

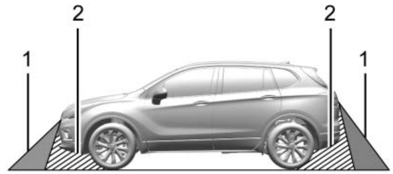
A warning triangle may display to show that Rear Park Assist (RPA) has detected an object. This triangle changes from amber to red and increases in size the closer the object.

Surround Vision

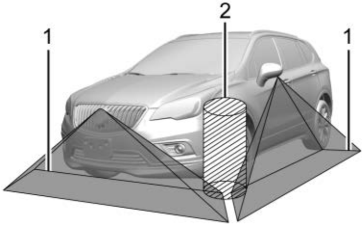
If equipped, Surround Vision displays an image of the area surrounding the vehicle, along with the front or rear camera views in the infotainment display. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear camera is above the license plate.

⚠ Warning

The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.

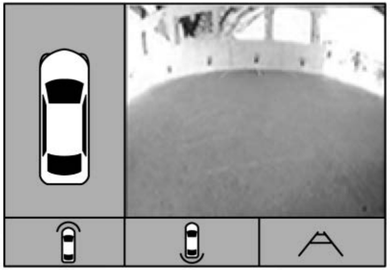


1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown



1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown

Front Vision Camera



If equipped, a view of the area in front of the vehicle displays. The view displays after shifting from R (Reverse) to a forward gear, or by touching CAMERA in the infotainment display, and when the vehicle is moving forward slower than 8 km/h (5 mph).

⚠ Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any

(Continued)

Warning (Continued)

other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

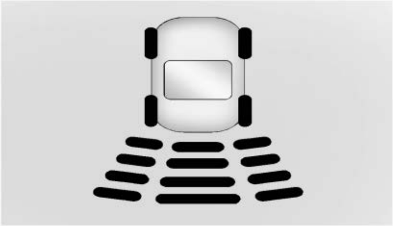
Park Assist

With RPA, as the vehicle backs up at speeds of less than 8 km/h (5 mph), the sensors on the rear bumper may detect objects up to 2.5 m (8 ft) behind the vehicle within a zone 25 cm (10 in) high off the ground and below bumper level. These detection distances may be shorter during warmer or humid weather.

Blocked sensors will not detect objects and can also cause false detections. Keep the sensors clean of mud, dirt, snow, ice, and slush; and clean sensors after a car wash in freezing temperatures.

⚠ Warning

The Park Assist system does not detect children, pedestrians, bicyclists, animals, or objects located below the bumper or that are too close or too far from the vehicle. It is not available at speeds greater than 8 km/h (5 mph). To prevent injury, death, or vehicle damage, even with Park Assist, always check the area around the vehicle and check all mirrors before moving forward or backing.



The instrument cluster may have a park assist display with bars that show “distance to object” and object location information for RPA. As the object gets closer, more bars light up and the bars change color from yellow to amber to red.

When an object is first detected in the rear, one beep will be heard from the rear. When an object is very close, <0.6 m (2 ft) in the vehicle rear, five beeps will sound from the rear.

Rear Cross Traffic Alert (RCTA)

If equipped, RCTA shows a red warning triangle with a left or right pointing arrow on the infotainment display to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, three beeps sound from the left or right, depending on the direction of the detected vehicle.

Use caution while backing up when towing a trailer, as the RCTA detection zones that extend out from the back of the vehicle do not move further back when a trailer is towed.

Turning the Features On or Off

RPA can be turned on and off through vehicle personalization. See *Vehicle Personalization* ⇨ *155*.

Turn off RPA when towing a trailer.

To turn the Rear Park assist symbols or guidance lines on or off (on some models), see “Rear Camera” under *Vehicle Personalization* ⇨ *155*.

RCTA can also be turned on or off through vehicle personalization. see “Collision/Detection Systems” under *Vehicle Personalization* ⇨ *155*.

Assistance Systems for Driving

If equipped, when driving the vehicle in a forward gear, Forward Collision Alert (FCA), Lane Departure Warning (LDW), Lane Keep Assist (LKA), Side Blind Zone Alert (SBZA), Lane Change Alert (LCA), Forward Automatic Braking (FAB), and/or the Front Pedestrian Braking (FPB) System can help to avoid a crash or reduce crash damage.

Forward Collision Alert (FCA) System

If equipped, the FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps. FCA also lights an amber visual alert if following another vehicle much too closely.

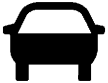
FCA detects vehicles within a distance of approximately 60 m (197 ft) and operates at speeds above 8 km/h (5 mph). If the vehicle has Adaptive Cruise Control (ACC), it can detect vehicles to distances of approximately 110 m (360 ft) and operates at all speeds. See *Adaptive Cruise Control* ⇨ *248*.

⚠ Warning

FCA is a warning system and does not apply the brakes. When approaching a slower-moving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. It also may not provide any warning at all. FCA does not warn of pedestrians, animals, signs, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ *210*.

FCA can be disabled through vehicle personalization. See “Collision/Detection Systems” under *Vehicle Personalization* ⇨ *155*.

Detecting the Vehicle Ahead



FCA warnings will not occur unless the FCA system detects a vehicle ahead. When a vehicle is detected, the vehicle ahead indicator will display green. Vehicles may not be detected on curves, highway exit ramps, or hills, due to poor visibility; or if a vehicle ahead is partially blocked by pedestrians or other objects. FCA will not detect another vehicle ahead until it is completely in the driving lane.

⚠ Warning

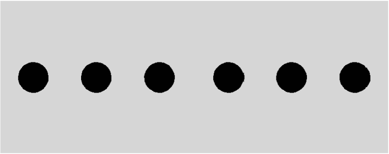
FCA does not provide a warning to help avoid a crash, unless it detects a vehicle. FCA may not detect a vehicle ahead if the FCA sensor is blocked by dirt, snow,

(Continued)

Warning (Continued)

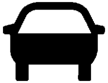
or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and FCA sensors clean and in good repair.

Collision Alert



When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front. When this Collision Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Collision Alert occurs.

Tailgating Alert



The vehicle ahead indicator will display amber when you are following a vehicle ahead much too closely.

Selecting the Alert Timing

The Collision Alert control is on the steering wheel. Press to set the FCA timing to Far, Medium, or Near. The first button press shows the current setting on the Driver Information Center (DIC). Additional button presses will change this setting. The chosen setting will remain until it is changed and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timings may not be appropriate for all drivers and driving conditions.

If your vehicle is equipped with Adaptive Cruise Control (ACC), changing the FCA timing setting automatically changes the following gap setting (Far, Medium, or Near).

Following Distance Indication

The following distance to a moving vehicle you are following is indicated in following time in seconds on the DIC. See *Driver Information Center (DIC)* ⇨ *151*. The minimum following time is 0.5 seconds away. If there is no vehicle detected ahead, or the vehicle ahead is out of sensor range, dashes will be displayed.

Unnecessary Alerts

FCA may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Cleaning the System

If the FCA system does not seem to operate properly, this may correct the issue:

- Clean the outside of the windshield in front of the rearview mirror.
- Clean the entire front of the vehicle.
- Clean the headlamps.

Forward Automatic Braking (FAB)

If the vehicle has Forward Collision Alert (FCA), it also has FAB, which includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling in the same direction that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear. Depending on the situation, the vehicle may automatically brake moderately or hard. This forward automatic braking can only occur if a vehicle is detected. This is shown by the FCA vehicle ahead indicator being lit. See *Forward Collision Alert (FCA) System* ⇨ *261*.

The system works when driving in a forward gear between 8 km/h (5 mph) and 80 km/h (50 mph), or on vehicles with Adaptive Cruise Control (ACC), above 4 km/h (2 mph). It can detect vehicles up to approximately 60 m (197 ft).

⚠ Warning

FAB is an emergency crash preparation feature and is not designed to avoid crashes. Do not rely on FAB to brake the

(Continued)

Warning (Continued)

vehicle. FAB will not brake outside of its operating speed range and only responds to detected vehicles.

FAB may not:

- Detect a vehicle ahead on winding or hilly roads.
- Detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- Detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- Detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

FAB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, FAB may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal.

⚠ Warning

FAB may automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could respond to a turning vehicle ahead, guardrails, signs, and other non-moving objects. To override FAB, firmly press the accelerator pedal, if it is safe to do so.

Intelligent Brake Assist (IBA)

IBA may activate when the brake pedal is applied quickly by providing a boost to braking based on the speed of approach and distance to a vehicle ahead. Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed. IBA will automatically disengage only when the brake pedal is released.

⚠ Warning

IBA may increase vehicle braking in situations when it may not be necessary. You could block the flow of traffic. If this occurs, take your foot off the brake pedal and then apply the brakes as needed.

FAB and IBA can be disabled through vehicle personalization. See “Collision/Detection Systems” under *Vehicle Personalization* ⇨ *155*.

⚠ Warning

Using FAB or IBA while towing a trailer could cause you to lose control of the vehicle and crash.

(Continued)

Warning (Continued)

Turn the system to Alert, or if the vehicle has ACC to Off, when towing a trailer.

A system unavailable message may display if:

- The front of the vehicle or windshield is not clean.
- Heavy rain or snow is interfering with object detection.
- There is a problem with the StabiliTrak/Electronic Stability Control (ESC) system.

The FAB system does not need service.

Front Pedestrian Braking (FPB) System

If equipped, the Front Pedestrian Braking (FPB) system may help avoid or reduce the harm caused by front-end crashes with nearby pedestrians when driving in a forward gear. FPB displays an amber indicator, 🚶, when a nearby pedestrian is detected directly ahead. When approaching a detected pedestrian too quickly, FPB provides a red flashing alert on the windshield and rapidly beeps. FPB can provide a boost to braking or automatically brake the vehicle. This system includes Intelligent Brake Assist (IBA), and the Forward Automatic Braking (FAB) system may also respond to pedestrians. See *Forward Automatic Braking (FAB)* ⇨ *263*.

The FPB system can detect and alert to pedestrians in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians up to a distance of approximately 40 m (131 ft). During nighttime driving, system performance is very limited.

⚠ Warning

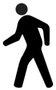
FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian. FPB may not detect pedestrians, including children:

- When the pedestrian is not directly ahead, fully visible, or standing upright, or when part of a group.
- Due to poor visibility, including nighttime conditions, fog, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlamps or windshield are not cleaned or in proper condition.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ *210*. Keep the windshield, headlamps, and FPB sensor clean and in good repair.

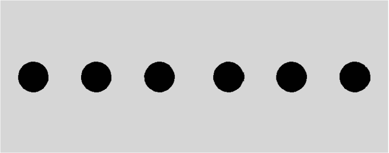
FPB can be set to Off, Alert, or Alert and Brake through vehicle personalization. See “Collision/ Detection Systems” under *Vehicle Personalization* ⇨ *155*.

Detecting the Pedestrian Ahead



FPB alerts and automatic braking will not occur unless the FPB system detects a pedestrian. When a nearby pedestrian is detected directly in front of the vehicle, the pedestrian ahead indicator will display amber.

Front Pedestrian Alert



When the vehicle approaches a pedestrian ahead too rapidly, the red FPB alert display will flash on the windshield. Eight rapid high-pitched beeps will sound from the front. When this Pedestrian Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Front Pedestrian Alert occurs.

Automatic Braking

If FPB detects it is about to crash into a pedestrian directly ahead, and the brakes have not been applied, FPB may automatically brake moderately or brake hard. This can help to avoid some very low speed pedestrian crashes or reduce pedestrian injury. FPB can automatically brake to detected pedestrians between 8 km/h (5 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

If this happens, Automatic Braking may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB. A firm press of the accelerator pedal will also release Automatic Braking and the EPB.

⚠ Warning

FPB may alert or automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could falsely alert or brake for objects similar in shape or size to pedestrians, including shadows. This is normal operation and the vehicle does

(Continued)

Warning (Continued)

not need service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.

Automatic Braking can be disabled through vehicle personalization. See “Front Pedestrian Detection” in “Collision/Detection Systems” under *Vehicle Personalization* ⇨ *155*.

⚠ Warning

Using the Front Pedestrian Braking system while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

Cleaning the System

If FPB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

Side Blind Zone Alert (SBZA)

If equipped, the SBZA system is a lane-changing aid that assists drivers with avoiding crashes that occur with moving vehicles in the side blind zone (or spot) areas. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving vehicle is detected in that blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. Since this system is part of the Lane Change Alert (LCA) system, read the entire LCA section before using this feature.

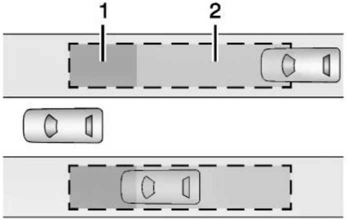
Lane Change Alert (LCA)

If equipped, the LCA system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with moving vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind. The LCA warning display will light up in the corresponding outside side mirror and will flash if the turn signal is on.

⚠ Warning

LCA does not alert the driver to vehicles outside of the system detection zones, pedestrians, bicyclists, or animals. It may not provide alerts when changing lanes under all driving conditions. Failure to use proper care when changing lanes may result in injury, death, or vehicle damage. Before making a lane change, always check mirrors, glance over your shoulder, and use the turn signals.

LCA Detection Zones

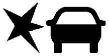


1. SBZA Detection Zone
2. LCA Detection Zone

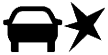
The LCA sensor covers a zone of approximately one lane over from both sides of the vehicle, or 3.5 m (11 ft). The height of the zone is approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The Side Blind Zone Alert (SBZA) warning area starts at approximately the middle of the vehicle and goes back 5 m (16 ft). Drivers are also warned of vehicles rapidly approaching from up to 70 m (230 ft) behind the vehicle.

How the System Works

The LCA symbol lights up in the side mirrors when the system detects a moving vehicle in the next lane over that is in the side blind zone or rapidly approaching that zone from behind. A lit LCA symbol indicates it may be unsafe to change lanes. Before making a lane change, check the LCA display, check mirrors, glance over your shoulder, and use the turn signals.



Left Side Mirror Display



Right Side Mirror Display

When the vehicle is started, both outside mirror LCA displays will briefly come on to indicate the system is operating. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving vehicle is detected in the next lane over in that blind zone or rapidly approaching that zone.
If the turn signal is activated in the same direction as a detected vehicle, this display will flash as an extra warning not to change lanes.

LCA can be disabled through vehicle personalization using the Side Blind Zone Alert option. See “Collision/Detection Systems” under *Vehicle Personalization* ⇨ *155*.
If LCA is disabled by the driver, the LCA mirror displays will not light up.

When the System Does Not Seem to Work Properly

The LCA system requires some driving for the system to calibrate to maximum performance. This calibration may occur more quickly if the vehicle is driving on a straight highway road with traffic and roadside objects (e.g., guardrails, barriers).

LCA displays may not come on when passing a vehicle quickly, for a stopped vehicle, or when towing a trailer. The LCA detection zones that extend back from the side of the vehicle do not move further back when a trailer is towed. Use caution while changing lanes when towing a trailer. LCA may alert to objects attached to the vehicle, such as a trailer, bicycle, or object extending out to either side of the vehicle. Attached objects may also interfere with the detection of vehicles. This is normal system operation; the vehicle does not need service.

LCA may not always alert the driver to vehicles in the next lane over, especially in wet conditions or when driving on sharp curves. The system does not need to be serviced. The system may light up due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

LCA may not operate when the LCA sensors in the left or right corners of the rear bumper are covered with mud, dirt, snow, ice, or slush, or in heavy rainstorms. For cleaning instructions, see "Washing the Vehicle" under *Exterior Care ⇨ 360*. If the DIC still displays the system unavailable message after cleaning both sides of the vehicle toward the rear corners of the vehicle, see your dealer.

If the LCA displays do not light up when moving vehicles are in the side blind zone or are rapidly approaching this zone and the system is clean, the system may need service. Take the vehicle to your dealer.

When LCA is disabled for any reason other than the driver turning it off, the Side Blind Zone Alert On option will not be available on the personalization menu.

Radio Frequency Information

See *Radio Frequency Statement ⇨ 397*.

Lane Departure Warning (LDW)

If equipped, LDW may help avoid crashes due to unintentional lane departures. It may provide a warning if the vehicle is crossing a detected lane marking without using a turn signal in the lane departure direction. Since this system is part of the Lane Keep Assist (LKA) system, read the entire LKA section before using this feature.

Lane Keep Assist (LKA)

If equipped, LKA may help avoid crashes due to unintentional lane departures. It may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide a Lane Departure Warning (LDW) system alert as the lane marking is crossed. The LKA system will not assist or provide an LDW alert if it detects that you are actively steering. Override LKA by turning the steering wheel. LKA uses a camera to detect lane markings between 60 km/h (37 mph) and 180 km/h (112 mph).

⚠ Warning

The LKA system does not continuously steer the vehicle. It may not keep the vehicle in the lane or give a Lane Departure Warning (LDW) alert, even if a lane marking is detected.

The LKA and LDW systems may not:

- Provide an alert or enough steering assist to avoid a lane departure or crash.
- Detect lane markings under poor weather or visibility conditions. This can occur if the windshield or headlamps are blocked by dirt, snow, or ice, if they are not in proper condition, or if the sun shines directly into the camera.
- Detect road edges.
- Detect lanes on winding or hilly roads.

(Continued)

Warning (Continued)

If LKA only detects lane markings on one side of the road, it will only assist or provide an LDW alert when approaching the lane on the side where it has detected a lane marking. Even with LKA and LDW, you must steer the vehicle. Always keep your attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury, or death could occur. Always keep the windshield, headlamps, and camera sensors clean and in good repair. Do not use LKA in bad weather conditions.

⚠ Warning

Using LKA while towing a trailer or on slippery roads could cause loss of control of the vehicle and a crash. Turn the system off.

How the System Works

The LKA camera sensor is on the windshield ahead of the rearview mirror.

To turn LKA on and off, press on the center console.

When on, is green if LKA is available to assist and provide LDW alerts. It may assist by gently turning the steering wheel and display as amber if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide an LDW alert by flashing amber as the lane marking is crossed. Additionally, there may be three beeps, or the driver seat may pulse three times, on the right or left, depending on the lane departure direction.

Take Steering

The LKA system does not continuously steer the vehicle. If LKA does not detect active driver steering, an alert, chime, or DIC message may be provided. Steer the vehicle to dismiss.

When the System Does Not Seem to Work Properly

The system performance may be affected by:

- Close vehicles ahead.
- Sudden lighting changes, such as when driving through tunnels.
- Banked roads.
- Roads with poor lane markings, such as two-lane roads.

If the LKA system is not functioning properly when lane markings are clearly visible, cleaning the windshield may help.

A system unavailable message may display if the camera is blocked. The LKA system does not need service.

LKA assistance and/or LDW alerts may occur due to tar marks, shadows, cracks in the road, temporary or construction lane markings, or other road imperfections. This is normal system operation; the vehicle does not need service. Turn LKA off if these conditions continue.

Fuel

Top Tier Fuel

GM recommends the use of TOP TIER Detergent Gasoline to keep the engine clean, reduce engine deposits, and maintain optimal vehicle performance. Look for the TOP TIER Logo or see www.toptiergas.com for a list of TOP TIER Detergent Gasoline marketers and applicable countries.

TOP
TIER
Detergent Gasoline

CATÉGORIE
SUPERIÉURE
Essences Détergentes

Recommended Fuel (2.0L L4 Engine)

Do not use any fuel labeled E85 or FlexFuel. Do not use gasoline with ethanol levels greater than 15% by volume.

Premium unleaded gasoline meeting ASTM specification D4814 with a posted octane rating of 93 is highly recommended for best performance and fuel economy. Unleaded gasoline with an octane rated as low as 87 can be used. Using unleaded gasoline rated below 93 octane, however, will lead to reduced acceleration and fuel economy. If knocking occurs, use a gasoline rated at 93 octane as soon as possible, otherwise, the engine could be damaged. If heavy knocking is heard when using gasoline with a 93 octane rating, the engine needs service.

Recommended Fuel (3.6L V6 Engine)

Do not use any fuel labeled E85 or FlexFuel. Do not use gasoline with ethanol levels greater than 15% by volume.

Use regular unleaded gasoline meeting ASTM specification D4814 with a posted octane rating of 87 or higher. Do not use gasoline with a posted octane rating of less than 87, as this may cause engine knock and will lower fuel economy.

Prohibited Fuels

Caution

Do not use fuels with any of the following conditions; doing so may damage the vehicle and void its warranty:

- For vehicles that are not FlexFuel, fuel labeled greater than 15% ethanol by volume, such as mid-level ethanol blends (16–50% ethanol), E85, or FlexFuel.
- Fuel with any amount of methanol, methylal, ferrocene, and aniline. These fuels can corrode metal fuel system parts or damage plastic and rubber parts.
- Fuel containing metals such as methylcyclopentadienyl manganese tricarbonyl (MMT), which can damage the emissions control system and spark plugs.
- Fuel with a posted octane rating of less than the recommended fuel. Using this fuel will lower fuel economy and performance, and may decrease the life of the emissions catalyst.

(Continued)

Caution (Continued)

Fuels in Foreign Countries

The U.S., Canada, and Mexico post fuel octane ratings in anti-knock index (AKI). For fuel not to use in a foreign country, see *Prohibited Fuels* ⇨ *272*.

Fuel Additives

TOP TIER Detergent Gasoline is highly recommended for use with your vehicle. If your country does not have TOP TIER Detergent Gasoline, add ACDelco Fuel System Treatment Plus−Gasoline to the vehicle's gasoline fuel tank at every oil change or 15,000 km (9,000 mi), whichever occurs first. TOP TIER Detergent Gasoline and ACDelco Fuel System Treatment Plus−Gasoline will help keep your vehicle's engine fuel deposit free and performing optimally.

Filling the Tank

⚠ Warning

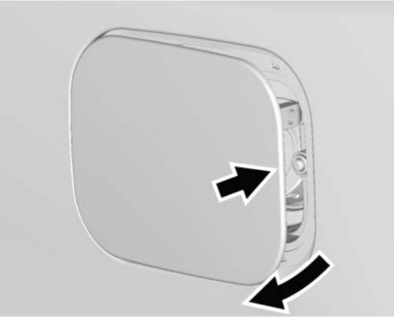
Fuel vapors and fuel fires burn violently and can cause injury or death.

- To help avoid injuries to you and others, read and follow all the instructions on the fuel pump island.
- Turn off the engine when refueling.
- Keep sparks, flames, and smoking materials away from fuel.
- Do not leave the fuel pump unattended.
- Avoid using electronic devices while refueling.
- Do not reenter the vehicle while pumping fuel.
- Keep children away from the fuel pump and never let children pump fuel.

(Continued)

Warning (Continued)

- Fuel can spray out if the refueling nozzle is inserted too quickly. This spray can happen if the tank is nearly full, and is more likely in hot weather. Insert the refueling nozzle slowly and wait for any hiss noise to stop prior to beginning to flow fuel.



To open the fuel door, push and release the rearward center edge of the door.

The vehicle has a capless refueling system and does not have a fuel cap. The filling nozzle must be fully inserted and latched prior to starting fuel flow.

⚠ Warning

Overfilling the fuel tank by more than three clicks of a standard fill nozzle may cause:

- Vehicle performance issues, including engine stalling and damage to the fuel system.
- Fuel spills.
- Potential fuel fires.

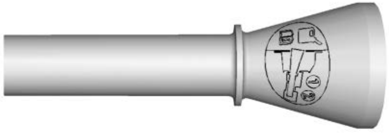
Be careful not to spill fuel. Wait a few seconds after you have finished pumping before removing the nozzle. Clean fuel from painted surfaces as soon as possible. See *Exterior Care ⇨ 360*.

⚠ Warning

If a fire starts while you are refueling, do not remove the nozzle. Shut off the flow of fuel by shutting off the pump or by notifying the station attendant. Leave the area immediately.

Filling the Tank with a Portable Gas Can

If the vehicle runs out of fuel and must be filled from a portable gas can:



1. Locate the capless funnel adapter from the rear cargo area under the load floor.
2. Insert and latch the funnel into the capless fuel system.

⚠ Warning

Attempting to refuel without using the funnel adapter may cause fuel spillage and damage the capless fuel system. This could cause a fire and you or others could be badly burned and the vehicle could be damaged.

3. Remove and clean the funnel adapter and return it to the storage location.

Filling a Portable Fuel Container

⚠ Warning

Never fill a portable fuel container while it is in the vehicle. Static electricity discharge from the container can ignite the fuel vapor. You can be badly burned

(Continued)

Warning (Continued)

and the vehicle damaged if this occurs. To help avoid injury to you and others:

- Dispense fuel only into approved containers.
- Do not fill a container while it is inside a vehicle, in a vehicle's trunk, pickup bed, or on any surface other than the ground.
- Bring the fill nozzle in contact with the inside of the fill opening before operating the nozzle. Contact should be maintained until the filling is complete.
- Do not smoke while pumping fuel.
- Avoid using electronic devices.

Trailer Towing

General Towing Information

Only use towing equipment that has been designed for the vehicle. Contact your dealer or trailering dealer for assistance with preparing the vehicle to tow a trailer. Read the entire section before towing a trailer.

To tow a disabled vehicle, see *Towing the Vehicle ⇨ 356*. To tow the vehicle behind another vehicle such as a motor home, see *Recreational Vehicle Towing ⇨ 357*.

Driving Characteristics and Towing Tips

⚠ Warning

You can lose control when towing a trailer if the correct equipment is not used or the vehicle is not driven properly. For example, if the trailer is too heavy or the trailer brakes are inadequate for the load, the vehicle may not stop as expected. You and others could be seriously injured. The vehicle may also be damaged, and the repairs would not be covered by the vehicle warranty. Pull a trailer only if all the steps in this section have been followed. Ask your dealer for advice and information about towing a trailer with the vehicle.

Driving with a Trailer

Trailering is different than just driving the vehicle by itself. Trailering means changes in handling, acceleration, braking, durability, and fuel economy. Successful, safe trailering takes correct equipment, and it has to be used properly.

The following information has many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Read this section carefully before pulling a trailer.

When towing a trailer:

- Become familiar with and follow all state and local laws that apply to trailer towing. These requirements vary from state to state.
- State laws may require the use of extended side view mirrors. Even if not required, you should install extended side view mirrors if your visibility is limited or restricted while towing.
- Do not tow a trailer during the first 800 km (500 mi) of vehicle use to prevent damage to the engine, axle, or other parts.
- During the first 800 km (500 mi) of trailer towing, do not drive over 80 km/h (50 mph) and do not make starts at full throttle.
- Vehicles can tow in D (Drive). Tow/Haul Mode is recommended for heavier trailers. See *Tow/Haul Mode* ⇨ *236*. If the transmission downshifts too often, a lower gear may be selected using Manual Mode See *Manual Mode* ⇨ *235*.

If equipped, Driver Assistance systems must be turned off when towing a trailer See *Driver Assistance Systems* ⇨ *256*.

⚠ Warning

To prevent serious injury or death from carbon monoxide (CO), when towing a trailer:

- Do not drive with the liftgate, trunk/hatch, or rear-most window open.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to a setting that brings in only outside air. See “Climate Control Systems” in the Index.

(Continued)

Warning (Continued)

For more information about carbon monoxide, see *Engine Exhaust* ⇨ *232*.

Towing a trailer requires experience. The combination of the vehicle and trailer is longer and not as responsive as the vehicle itself. Get used to the handling and braking of the combination by driving on a level road surface before driving on public roads.

The trailer structure, the tires, and the brakes must be all be rated to carry the intended cargo. Inadequate trailer equipment can cause the combination to operate in an unexpected or unsafe manner. Before driving, inspect all trailer hitch parts and attachments, safety chains, electrical connectors, lamps, tires, and mirrors. See *Towing Equipment* ⇨ *281*. If the trailer has electric brakes, start the combination moving and then manually apply the trailer brake controller to check the trailer brakes work. During the trip, occasionally check that the cargo and trailer are secure and that the lamps and any trailer brakes are working.

Towing with a Stability Control System

When towing, the stability control system might be heard. The system reacts to vehicle movement caused by the trailer, which mainly occurs during cornering. This is normal when towing heavier trailers.

Following Distance

Stay at least twice as far behind the vehicle ahead as you would when driving without a trailer. This can help to avoid heavy braking and sudden turns.

Passing

More passing distance is needed when towing a trailer. The combination will not accelerate as quickly and is much longer so it is necessary to go much farther beyond the passed vehicle before returning to the lane. Pass on level roadways. Avoid passing on hills if possible.

Backing Up

Hold the bottom of the steering wheel with one hand. To move the trailer to the left, move that hand to the left. To move the trailer to the right, move that hand to the right. Always back up slowly and, if possible, have someone guide you.

Making Turns

Caution

Turn more slowly and make wider arcs when towing a trailer to prevent damage to your vehicle. Making very sharp turns could cause the trailer to contact the vehicle.

Make wider turns than normal when towing, so trailer will not go over soft shoulders, over curbs, or strike road signs, trees, or other objects. Always signal turns well in advance. Do not steer or brake suddenly.

Driving on Grades

Reduce speed and shift to a lower gear before starting down a long or steep downhill grade. If the transmission is not shifted down, the brakes may overheat and result in reduced braking efficiency.

The vehicle can tow in D (Drive). Shift the transmission to a lower gear if the transmission shifts too often under heavy loads and/or hilly conditions.

When towing at higher altitudes, engine coolant will boil at a lower temperature than at lower altitudes. If the engine is turned off immediately after towing at high altitude on steep uphill grades, the vehicle could show signs similar to engine overheating. To avoid this, let the engine run, preferably on level ground, with the transmission in P (Park) for a few minutes before turning the engine off. If the overheat warning comes on, see *Engine Overheating* ⇨ *303*.

Parking on Hills

⚠ Warning

To prevent serious injury or death, always park your vehicle and trailer on a level surface when possible.

When parking your vehicle and your trailer on a hill:

1. Press the brake pedal, but do not shift into P (Park) yet. Turn the wheels into the curb if facing downhill or into traffic if facing uphill.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place, gradually release the brake pedal to allow the chocks to absorb the load of the trailer.
4. Reapply the brake pedal. Then apply the parking brake and shift into P (Park).
5. Release the brake pedal.

Leaving After Parking on a Hill

1. Apply and hold the brake pedal.
   - Start the engine.
   - Shift into a gear.
   - Release the parking brake.
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance When Trailer Towing

The vehicle needs service more often when used to tow trailers. See *Maintenance Schedule* ⇨ *371*. It is especially important to check the automatic transmission fluid, engine oil, axle lubricant, belts, cooling system, and brake system before and during each trip.

Check periodically that all nuts and bolts on the trailer hitch are tight.

Engine Cooling When Trailer Towing

The cooling system may temporarily overheat during severe operating conditions. See *Engine Overheating* ⇨ *303*.

Trailer Towing

Caution

Towing a trailer improperly can damage the vehicle and result in costly repairs not covered by the vehicle warranty. To tow a trailer correctly, follow the directions in this section and see your dealer for important information about towing a trailer with the vehicle.

Trailer Weight

⚠ Warning

Never exceed the towing capacity for your vehicle.

Safe trailering requires monitoring the weight, speed, altitude, road grades, outside temperature, dimensions of the front of the trailer, and how frequently the vehicle is used to tow a trailer.

Trailer Weight Ratings

When towing a trailer, the weight of the loaded vehicle and trailer must be within the weight ratings for the vehicle.

- GCWR: Gross Combined Weight Rating
- GVWR: Gross Vehicle Weight Rating
- Maximum Trailer Weight Rating
- Maximum Trailer Tongue Weight

The only way to be sure the weight is not exceeding any of these ratings is to weigh the tow vehicle and trailer combination, fully loaded for the trip, getting individual weights for each of these items.

⚠ Warning

You and others could be seriously injured or killed if the trailer is too heavy or the trailer brakes are inadequate for the load. The vehicle may be damaged, and the repairs would not be covered by the vehicle warranty.

Only tow a trailer if all the steps in this section have been followed. Ask your dealer for advice and information about towing a trailer.

Gross Combined Weight Rating (GCWR)

GCWR is the total allowable weight of the completely loaded vehicle and trailer including any fuel, passengers, cargo, equipment, and accessories. Do not exceed the GCWR for your vehicle. The GCWR for the vehicle is on the Tow Rating Chart following.

Gross Vehicle Weight Rating (GVWR)

For information about the vehicle's maximum load capacity, see *Vehicle Load Limits ⇨ 220*. When calculating the GVWR with a trailer attached, the trailer tongue weight must be included as part of the weight the vehicle is carrying.

Maximum Trailer Weight Rating

The maximum trailer weight rating is calculated assuming the tow vehicle has a driver, a front seat passenger, and all required trailering equipment. Weight of additional optional equipment, passengers, and cargo in the tow vehicle must be subtracted from the trailer weight rating.

Use the tow rating chart to determine how much the trailer can weigh, based on the vehicle model, powertrain and trailering options.

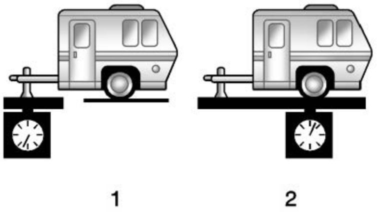
Vehicle	Maximum Trailer Weight	*GCWR
Front-Wheel Drive	680 kg (1,500 lb)	2 910 kg (6,415 lb)
Front-Wheel Drive, V92 Trailer Towing Package	2 268 kg (5,000 lb)	4 550 kg (10,030 lb)
All-Wheel Drive	680 kg (1,500 lb)	3 020 kg (6,650 lb)
All-Wheel Drive, V92 Trailer Towing Package	2 268 kg (5,000 lb)	4 650 kg (10,250 lb)
*The Gross Combination Weight Rating (GCWR) is the total allowable weight of the completely loaded vehicle and trailer including any passengers, cargo, equipment, and conversions. The GCWR for the vehicle should not be exceeded.		

Maximum Trailer Tongue Weight Rating

The Maximum Trailer Tongue Weight Rating is the allowable trailer tongue weight that the vehicle can support. Do not exceed a maximum trailer tongue weight of 500 lbs. The trailer tongue weight contributes to the Gross Vehicle Weight (GVW). GVW includes the CURB WEIGHT of your vehicle, any passengers, cargo, equipment and the trailer tongue weight. Vehicle options, passengers, cargo, and equipment reduce the maximum allowable tongue weight the vehicle can carry, which also reduces the maximum allowable trailer weight.

Trailer Load Balance

The correct trailer load balance must be maintained to ensure trailer stability. Incorrect load balance is a leading cause of trailer sway.



The trailer tongue weight (1) should be 10–15% of the loaded trailer weight (2). Some specific trailer types, such as boat trailers, fall outside of this range. Always refer to the trailer owner's manual for the recommended trailer tongue weight for each trailer. Never exceed the maximum loads for your vehicle, hitch and trailer.

After loading the trailer, separately weigh the trailer and then the tongue to see if the weights are proper. If the trailer tongue weight is too high or too low, adjustments might be made by moving some items around in the trailer.

If a cargo carrier is used in the trailer hitch receiver, choose a carrier that positions the load as close to the vehicle as possible. Make sure the total weight, including the carrier, is no more than half of the maximum allowable tongue weight for the vehicle or 227 kg (500 lb), whichever is less.

Ask your dealer for trailering information or assistance.

Towing Equipment

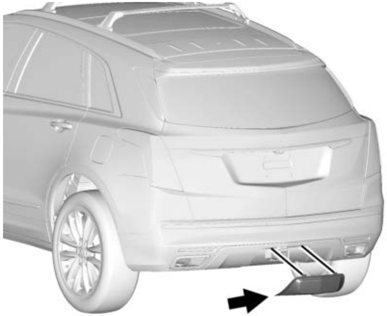
Hitches

Always use the correct hitch equipment for your vehicle. Crosswinds, large trucks going by, and rough roads can affect the trailer and the hitch.

Never attach rental hitches or other bumper-type hitches. Only use frame-mounted hitches that do not attach to the bumper.

Always seal any holes in your vehicle if the trailer hitch is removed. If not sealed, dirt, water, and carbon monoxide (CO) from the exhaust may enter your vehicle. See *Engine Exhaust* ⇨ *232*.

Hitch Cover



To remove hitch cover, if equipped:

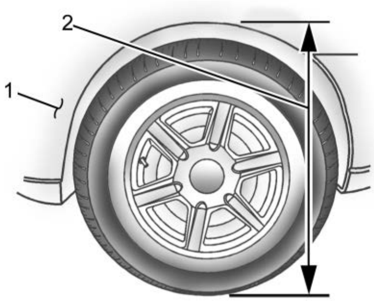
1. Remove the two fasteners on the lower tabs.
2. Pull the lower edge of the cover to about a 45 degree angle.
3. Pull the cover downward to disengage the upper attachments.

To reinstall hitch cover:

1. Hold cover at a 45 degree angle to the vehicle and push the upper tabs into the slots in the bumper.
2. Push the bottom of the cover forward until the lower tabs line up with the lower slots.
3. Snap the hitch cover into place by pushing the upper corners forward.
4. Reinstall the two fasteners on the lower tabs.

Consider using mechanical sway controls with any trailer. Ask a trailering professional about sway controls or refer to the trailer manufacturer's recommendations and instructions.

Weight-Distributing Hitch Adjustment



1. Front of Vehicle
2. Body to Ground Distance

When using a weight-distributing hitch, measure the front fender height distance (2) before connecting the trailer. Adjust the spring bars until the front fender height distance (2) is the same height before the trailer was connected. Do not reduce the front fender height below the initial distance (2).

Tires

- Do not tow a trailer while using a compact spare tire on the vehicle.
- Tires must be properly inflated to support loads while towing a trailer. See *Tires* ⇨ *324* for instructions on proper tire inflation.

Safety Chains

Always attach chains between the vehicle and the trailer, and attach the chains to the holes on the trailer hitch platform. Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer.

Cross the safety chains under the tongue of the trailer to help prevent the tongue from contacting the road if it becomes separated from the hitch. Always leave just enough slack so the combination can turn. Never allow safety chains to drag on the ground.

Trailer Brakes

Loaded trailers over 450 kg (1,000 lb) must be equipped with brake systems and with brakes for each axle. Trailer braking equipment conforming to Canadian Standards Association (CSA) requirement CAN3-D313, or its equivalent, is recommended.

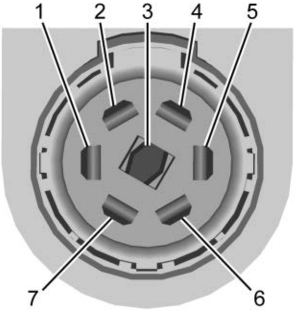
State or local regulations may require trailers to have their own braking system if the loaded weight of the trailer exceeds certain requirements that can vary from state to state.

Read and follow the instructions for the trailer brakes so they are installed, adjusted, and maintained properly.

Never attempt to tap into your vehicle's hydraulic brake system. If you do, both the vehicle anti-lock brakes and the trailer brakes may not function and could result in a crash.

Trailer Wiring

The trailer wiring harness (if equipped), with a 7-pin connector is located at the rear of the vehicle, and it is tied to the vehicle's frame.



If the vehicle is not equipped with a 7-pin trailer connector, the body harness has provisions to connect a trailer harness and a 7-pin trailer connector which is available through your dealer.

Use only a round, seven-wire connector with flat blade terminals meeting SAE J2863 specifications for proper electrical connectivity.

The seven-wire harness contains the following trailer circuits:

Stop/Turn Signal Left	Yellow/Blue
Stop/Turn Signal Right	Green/Brown
Tail/Parking Lamps	Gray/Brown
Reverse Lamps	White/Green
Battery Feed	Red/Green
Ground	Black
Electric Trailer Brake*	Blue

* Circuit powered by electric trailer brake control wiring provisions.

Electric Trailer Brake Control Wiring Provisions

Wiring provisions for an aftermarket electric trailer brake controller are included with the vehicle as part of the trailer wiring package. The harness contains the following circuits:

Electric Trailer Brakes	Blue
Battery Feed	Red/Green or Red/Blue
Brake Apply Signal	White/Blue
Ground	Black

Refer to the aftermarket electric trailer brake controller owner's manual to determine wire color coding of the electric trailer brake controller. The wire colors on the brake controller may be different from the vehicle. The electric trailer brake controller should be installed by your dealer or a qualified service center.

If equipped, there are four blunt cut wires inside the front driver side instrument panel. It will be necessary to have a technician connect the 12-volt power to the engine compartment fuse block.

Trailer Lamps

Always check all trailer lamps are working at the beginning of each trip, and periodically on longer trips.

Turn Signals When Towing a Trailer

When properly connected, the trailer turn signals will illuminate to indicate the vehicle is turning, changing lanes, or stopping. When towing a trailer, the arrows on the instrument cluster will illuminate even if the trailer is not properly connected or the bulbs are burned out.

Always check all trailer lamps are working at the beginning of each trip, and periodically on longer trips.

Tow/Haul Mode

For instructions on how to enter Tow/Haul mode, see *Driver Mode Control* ⇨ *242*.

Tow/Haul assists when pulling a heavy trailer or a large or heavy load. See *Tow/Haul Mode* ⇨ *236*.

Tow/Haul Mode is designed to be most effective when the vehicle and trailer combined weight is at least 75% of the vehicle's Gross Combined Weight Rating (GCWR). See "Weight of the Trailer" under *Trailer Towing* ⇨ *278*.

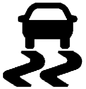
Tow/Haul Mode is most useful when pulling a heavy trailer or a large or heavy load:

- through rolling terrain
- in stop-and-go traffic
- in busy parking lots

Operating the vehicle in Tow/Haul Mode when lightly loaded or not towing will not cause damage. It is not recommended and may result in unpleasant engine and transmission driving characteristics and reduced fuel economy.

Trailer Sway Control (TSC)

Vehicles with StabiliTrak/Electronic Stability Control (ESC) have a Trailer Sway Control (TSC) feature. Trailer sway is unintended side-to-side motion of a trailer while towing. If the vehicle is towing a trailer and the TSC detects that sway is increasing, the vehicle brakes are selectively applied at each wheel, to help reduce excessive trailer sway. If equipped with the Integrated Trailer Brake Control (ITBC) system, and the trailer has an electric brake system, StabiliTrak/ESC may also apply the trailer brakes.



If TSC is enabled, the Traction Control System (TCS)/StabiliTrak/ESC warning light will flash on the instrument cluster. Reduce vehicle speed by gradually removing your foot from the accelerator. If trailer sway continues, StabiliTrak/ESC can reduce engine torque to help slow the vehicle. TSC will not function if StabiliTrak/ESC is turned off. See *Traction Control/Electronic Stability Control* ⇨ *241*.

⚠ Warning

Trailer sway can result in a crash and in serious injury or death, even if the vehicle is equipped with TSC.

If the trailer begins to sway, reduce vehicle speed by gradually removing your foot from the accelerator. Then pull over to check the trailer and vehicle to help correct possible causes, including an improperly or overloaded trailer, unrestrained cargo, improper trailer hitch configuration, or improperly inflated or incorrect vehicle or trailer tires. See *Towing Equipment* ⇨ *281* for trailer ratings and hitch setup recommendations.

Trailer Tires

Special Trailer (ST) tires differ from vehicle tires. Trailer tires are designed with stiff sidewalls to help prevent sway and to support heavy loads. These features can make it difficult to determine if the trailer tire pressures are low only based on a visual inspection.

Always check all trailer tire pressures before each trip when the tires are cool. Low trailer tire pressure is a leading cause of trailer tire blow-outs.

Trailer tires deteriorate over time. The trailer tire sidewall will show the week and year the tire was manufactured. Many trailer tire manufacturers recommend replacing tires more than six years old.

Overloading is another leading cause of trailer tire blow-outs. Never load your trailer with more weight than the tires are designed to support. The load rating is located on the trailer tire sidewall.

Always know the maximum speed rating for the trailer tires before driving. This may be significantly lower than the vehicle tire speed rating. The speed rating may be on the trailer tire sidewall. If the speed rating is not shown, the default trailer tire speed rating is 105 km/h (65 mph).

Conversions and Add-Ons

Add-On Electrical Equipment

⚠ Warning

The Data Link Connector (DLC) is used for vehicle service and Emission Inspection/ Maintenance testing. See *Malfunction Indicator Lamp (Check Engine Light)* ⇨ *142*. A device connected to the DLC — such as an aftermarket fleet or driver-behavior tracking device — may interfere with vehicle systems. This could affect vehicle operation and cause a crash. Such devices may also access information stored in the vehicle's systems.

Caution

Some electrical equipment can damage the vehicle or cause components to not work and would not be covered by the vehicle warranty. Always check with your dealer before adding electrical equipment.

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle* ⇨ *96* and *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ *96*.

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General Information

For service and parts needs, visit your dealer. You will receive genuine GM parts and GM-trained and supported service people.

Genuine GM parts have one of these marks:

ACDelco

GM GENUINE PARTS

GMC

ACCESSORIES

California Proposition 65 Warning

> **⚠ Warning**
>
> Most motor vehicles, including this one, as well as many of its service parts and fluids, contain and/or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Engine exhaust, many parts and systems, many fluids, and some component wear by-products contain and/or emit these chemicals. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

See *Battery - North America* ⇨ *307* and *Jump Starting - North America* ⇨ *354* and the back cover.

California Perchlorate Materials Requirements

Certain types of automotive applications, such as airbag initiators, seat belt pretensioners, and lithium batteries contained in Remote Keyless Entry transmitters, may contain perchlorate materials. Special handling may be necessary. For additional information, see www.dtsc.ca.gov/hazardouswaste/perchlorate.

Accessories and Modifications

Adding non-dealer accessories or making modifications to the vehicle can affect vehicle performance and safety, including such things as airbags, braking, stability, ride and handling, emissions systems, aerodynamics, durability, and electronic systems like antilock brakes, traction control, and stability control. These accessories or modifications could even cause malfunction or damage not covered by the vehicle warranty.

Damage to suspension components caused by modifying vehicle height outside of factory settings will not be covered by the vehicle warranty.

Damage to vehicle components resulting from modifications or the installation or use of non-GM certified parts, including control module or software modifications, is not covered under the terms of the vehicle warranty and may affect remaining warranty coverage for affected parts.

GM Accessories are designed to complement and function with other systems on the vehicle. See your dealer to accessorize the vehicle using genuine GM Accessories installed by a dealer technician.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle ⇨ 96*.

Vehicle Checks

Doing Your Own Service Work

> **⚠ Warning**
>
> It can be dangerous to work on your vehicle if you do not have the proper knowledge, service manual, tools, or parts. Always follow owner's manual procedures and consult the service manual for your vehicle before doing any service work.

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can. To order the proper service manual, see *Publication Ordering Information ⇨ 396*.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle ⇨ 96*.

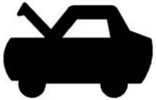
If equipped with remote vehicle start, open the hood before performing any service work to prevent remote starting the vehicle accidentally. See *Remote Vehicle Start* ⇨ *37*.

Keep a record with all parts receipts and list the mileage and the date of any service work performed. See *Maintenance Records* ⇨ *382*.

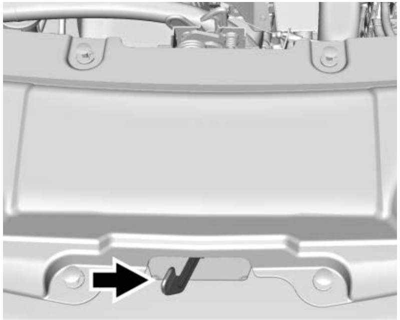
> **Caution**
>
> Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipsticks.

Hood

To open the hood:



1. Pull the hood release handle with this symbol on it. It is under the instrument panel on the driver side of the vehicle.

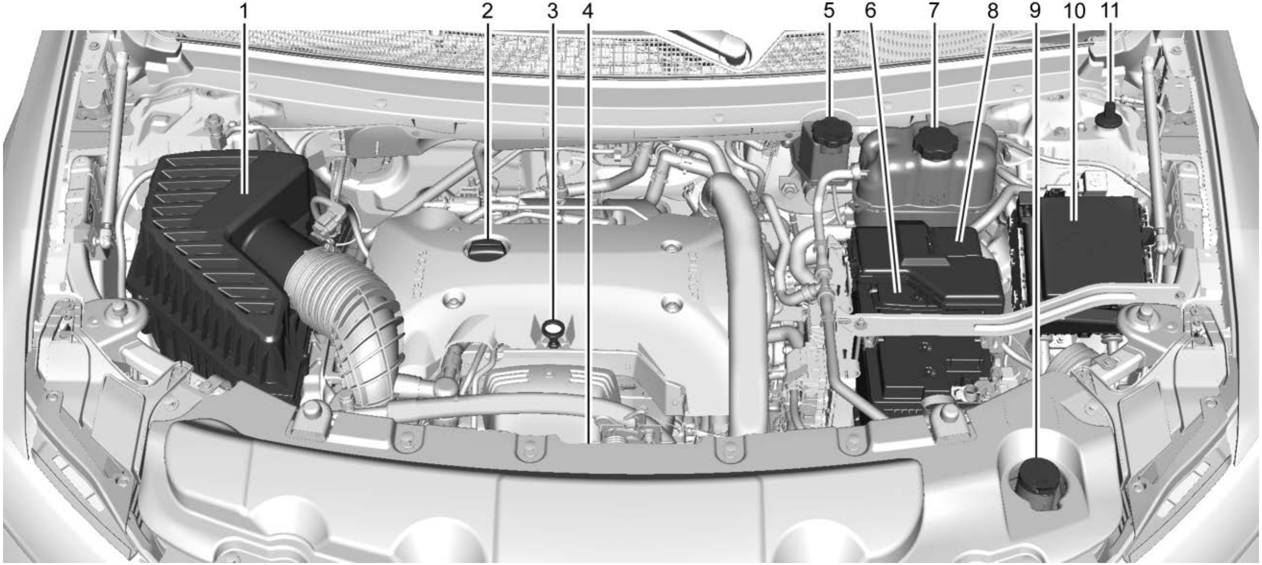


2. At the front of the vehicle, pull up on the center of the hood, and push the secondary hood release to the right.
3. After you have partially lifted the hood, gas struts will automatically take over to lift and hold the hood in the fully open position.

To close the hood:

1. Before closing the hood, be sure all filler caps are properly installed.
2. Pull the hood down to close. Lower the hood until the lifting pressure of the strut is reduced. Then allow the hood to fall and latch into place under its own weight
3. Check to make sure the hood is closed. If the hood does not fully latch, gently push the hood down at the front and center of the hood until it is completely latched.

Engine Compartment Overview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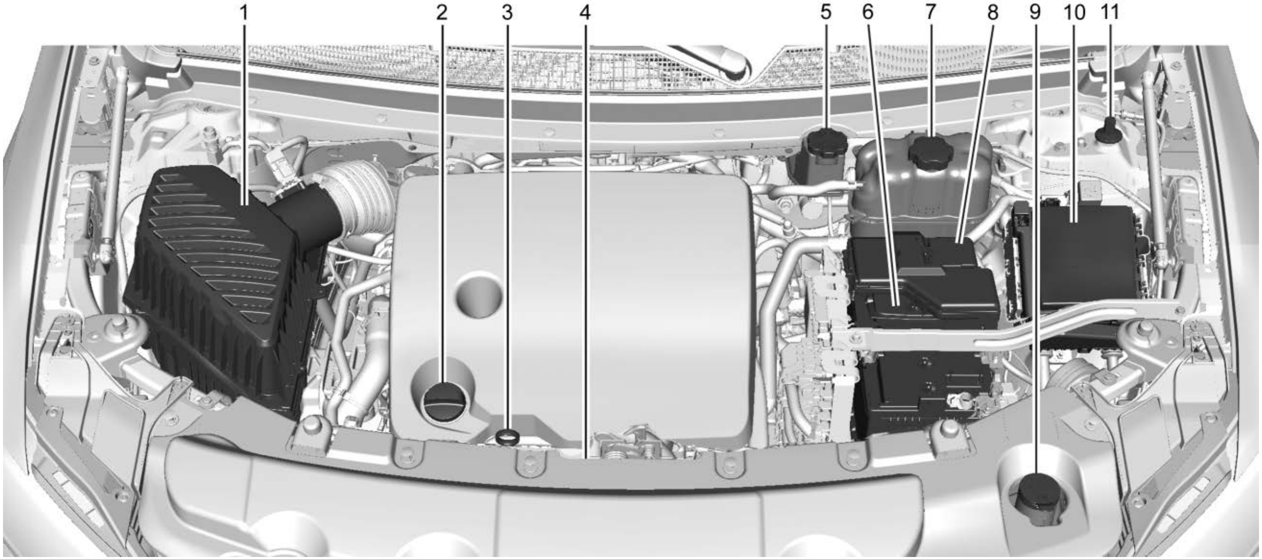
2.0L L4 Engine

1. *Engine Air Cleaner/Filter ⇨ 298*.
2. Engine Oil Fill Cap. See *Engine Oil ⇨ 294*.
3. Engine Oil Dipstick. See *Engine Oil ⇨ 294*.
4. Engine Cooling Fan (Out of View). See *Cooling System ⇨ 299*.
5. Brake Fluid Reservoir. See *Brake Fluid ⇨ 306*.
6. *Battery - North America ⇨ 307*.
7. Engine Coolant Surge Tank and Pressure Cap. See *Cooling System ⇨ 299*.
8. Positive (+) Battery Terminal (Under Cover). See *Jump Starting - North America ⇨ 354*.
9. Windshield Washer Fluid Reservoir. See *Washer Fluid ⇨ 304*.
10. *Engine Compartment Fuse Block ⇨ 316*.
11. Remote Negative (-) Battery Terminal. See *Jump Starting - North America ⇨ 354*.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3.6L V6 Engine

1. *Engine Air Cleaner/Filter* ⇨ *298*.
2. Engine Oil Fill Cap. See *Engine Oil* ⇨ *294*.
3. Engine Oil Dipstick. See *Engine Oil* ⇨ *294*.
4. Engine Cooling Fan (Out of View). See *Cooling System* ⇨ *299*.
5. Brake Fluid Reservoir. See *Brake Fluid* ⇨ *306*.
6. *Battery - North America* ⇨ *307*.
7. Engine Coolant Surge Tank and Pressure Cap. See *Cooling System* ⇨ *299*.
8. Positive (+) Battery Terminal. See *Jump Starting - North America* ⇨ *354*.
9. Windshield Washer Fluid Reservoir. See *Washer Fluid* ⇨ *304*.
10. *Engine Compartment Fuse Block* ⇨ *316*.
11. Remote Negative (-) Battery Terminal. See *Jump Starting - North America* ⇨ *354*.

Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

- Use engine oil approved to the proper specification and of the proper viscosity grade. See “Selecting the Right Engine Oil” in this section.
- Check the engine oil level regularly and maintain the proper oil level. See “Checking Engine Oil” and “When to Add Engine Oil” in this section.
- Change the engine oil at the appropriate time. See *Engine Oil Life System* ⇨ *296*.
- Always dispose of engine oil properly. See “What to Do with Used Oil” in this section.

Checking Engine Oil

Check the engine oil level regularly, every 650 km (400 mi), especially prior to a long trip. The engine oil dipstick handle is a loop. See *Engine Compartment Overview* ⇨ *291* for the location.

> **⚠ Warning**
>
> The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.

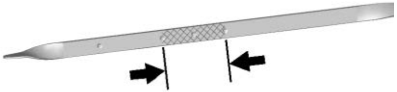
If a low oil Driver Information Center (DIC) message displays, check the oil level.

Follow these guidelines:

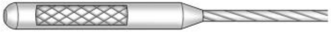
- To get an accurate reading, park the vehicle on level ground. Check the engine oil level after the engine has been off for at least two hours. Checking the engine oil level on steep grades or too soon after engine shutoff can result in incorrect readings. Accuracy improves when checking a cold engine prior to starting. Remove the dipstick and check the level.

- If unable to wait two hours, the engine must be off for at least 15 minutes if the engine is warm, or at least 30 minutes if the engine is not warm. Pull out the dipstick, wipe it with a clean paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.

When to Add Engine Oil



2.0L L4 Engine



3.6L V6 Engine

If the oil is below the cross-hatched area at the tip of the dipstick and the engine has been off for at least 15 minutes, add 1 L (1 qt) of the recommended oil and then recheck the level. See “Selecting the Right Engine Oil” later in this section for an explanation of what kind of oil to use. For engine oil crankcase capacity, see *Capacities and Specifications* ⇨ *384*.

Caution

Do not add too much oil. Oil levels above or below the acceptable operating range shown on the dipstick are harmful to the engine. If you find that you have an oil level above the

(Continued)

Caution (Continued)

operating range, i.e., the engine has so much oil that the oil level gets above the cross-hatched area that shows the proper operating range, the engine could be damaged. You should drain out the excess oil or limit driving of the vehicle and seek a service professional to remove the excess amount of oil.

See *Engine Compartment Overview* ⇨ *291* for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range. Push the dipstick all the way back in when through.

Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See *Recommended Fluids and Lubricants* ⇨ *380*.

Specification

Ask for and use full synthetic engine oils that meet the dexos1 specification. Engine oils that have been approved by GM as meeting the dexos1 specification are marked with the dexos1 approved logo. See www.gmdexos.com.

Caution

Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty.

Viscosity Grade

Use SAE 5W-30 viscosity grade engine oil. Cold Temperature Operation: In an area of extreme cold, where the temperature falls below −29 °C (−20 °F), an SAE 0W-30 oil may be used. An oil of this viscosity grade will provide easier cold starting for the engine at extremely low temperatures.

When selecting an oil of the appropriate viscosity grade, it is recommended to select an oil of the correct specification. See “Specification” earlier in this section.

Engine Oil Additives/Engine Oil Flushes

Do not add anything to the oil. The recommended oils meeting the dexos1 specification are all that is needed for good performance and engine protection.

Engine oil system flushes are not recommended and could cause engine damage not covered by the vehicle warranty.

What to Do with Used Oil

Used engine oil contains certain elements that can be unhealthy for your skin and could even cause cancer. Do not let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly dispose of clothing or rags containing used engine oil. See the manufacturer's warnings about the use and disposal of oil products.

Used oil can be a threat to the environment. If you change your own oil, be sure to drain all the oil from the filter before disposal. Never dispose of oil by putting it in the trash or pouring it on the ground, into sewers, or into streams or bodies of water. Recycle it by taking it to a place that collects used oil.

Engine Oil Life System

When to Change Engine Oil

This vehicle has a computer system that indicates when to change the engine oil and filter. This is based on a combination of factors which include engine revolutions, engine temperature, and miles driven. Based on driving conditions, the mileage at which an oil change is indicated can vary considerably. For the oil life system to work properly, the system must be reset every time the oil is changed.

On some vehicles, when the system has calculated that oil life has been diminished, a CHANGE ENGINE OIL SOON message comes on to indicate that an oil change is necessary. Change the oil as soon as possible within the next 1 000 km (600 mi). It is possible that, if driving under the best conditions, the oil life system might indicate that an oil change is not necessary for up to a year. The engine oil and filter must be changed at least once a year and, at this time, the system must be reset. For vehicles without the CHANGE ENGINE OIL SOON message, an oil change is needed when the OIL LIFE REMAINING percentage is near 0%. Your dealer has trained service people who will perform this work and reset the system. It is also important to check the oil regularly over the course of an oil drain interval and keep it at the proper level.

If the system is ever reset accidentally, the oil must be changed at 5 000 km (3,000 mi) since the last oil change. Remember to reset the oil life system whenever the oil is changed.

How to Reset the Engine Oil Life System

Reset the system whenever the engine oil is changed so that the system can calculate the next engine oil change. Always reset the engine oil life to 100% after every oil change. It will not reset itself. To reset the engine oil life system:

1. Display the OIL LIFE REMAINING on the DIC. See *Driver Information Center (DIC)* ⇨ *151*.
2. Press and hold ✓ for several seconds. The oil life will change to 100%.

The oil life system can also be reset as follows:

1. Display the OIL LIFE REMAINING on the DIC. See *Driver Information Center (DIC)* ⇨ *151*.
2. Fully press the accelerator pedal slowly three times within five seconds.
3. Display the OIL LIFE REMAINING on the DIC. If the display shows 100%, the system is reset.

If the vehicle has a CHANGE ENGINE OIL SOON message and it comes back on when the vehicle is started and/or the OIL LIFE REMAINING is near 0%, the engine oil life system has not been reset. Repeat the procedure.

Automatic Transmission Fluid

It is not necessary to check the transmission fluid level.
A transmission fluid leak is the only reason for fluid loss. If a leak

occurs, take the vehicle to the dealer and have it repaired as soon as possible.

Change the fluid at the intervals listed in *Maintenance Schedule* ⇨ *371*, and be sure to use the transmission fluid listed in *Recommended Fluids and Lubricants* ⇨ *380*.

Caution

Use of the incorrect automatic transmission fluid may damage the vehicle, and the damage may not be covered by the vehicle warranty. Always use the correct automatic transmission fluid. See *Recommended Fluids and Lubricants* ⇨ *380*.

If you need to check the transmission fluid level, take the vehicle to your dealer.

Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment on the passenger side of the vehicle. See *Engine Compartment Overview* ⇨ *291* for location.

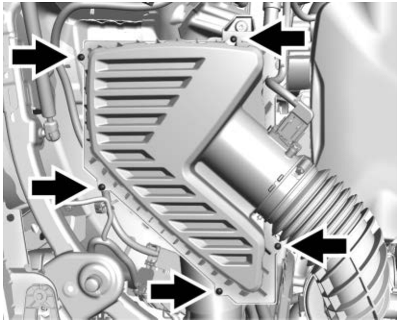
When to Inspect the Engine Air Cleaner/Filter

For intervals on changing and inspecting the engine air cleaner/filter, see *Maintenance Schedule* ⇨ *371*.

How to Inspect the Engine Air Cleaner/Filter

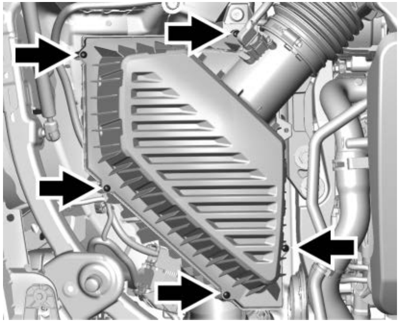
Do not start the engine or have the engine running with the engine air cleaner/filter housing open. Before removing the engine air cleaner/filter, make sure that the engine air cleaner/filter housing and nearby components are free of dirt and debris. Remove the engine air cleaner/filter. Lightly tap and shake the engine air cleaner/filter (away from the vehicle), to release loose dust and dirt. Inspect the engine air cleaner/filter for damage, and replace if damaged. Do not clean the engine air cleaner/filter or components with water or compressed air.

To inspect or replace the air cleaner/filter:



2.0L L4 Engine

1. Remove the five screws and lift the cover out of the assembly.
2. Inspect or replace the engine air cleaner/filter.
3. Lower the cover and secure with the five screws.



3.6L V6 Engine

1. Remove the five screws and lift the cover out of the assembly.
2. Inspect or replace the engine air cleaner/filter.
3. Lower the cover and secure with the five screws.

⚠ Warning

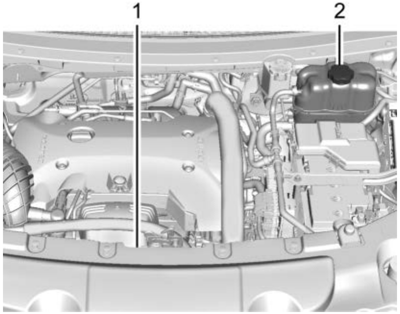
Operating the engine with the air cleaner/filter off can cause you or others to be burned. Use caution when working on the engine. Do not start the engine or drive the vehicle with the air cleaner/filter off, as flames may be present if the engine backfires.

Caution

If the air cleaner/filter is off, dirt can easily get into the engine, which could damage it. Always have the air cleaner/filter in place when driving.

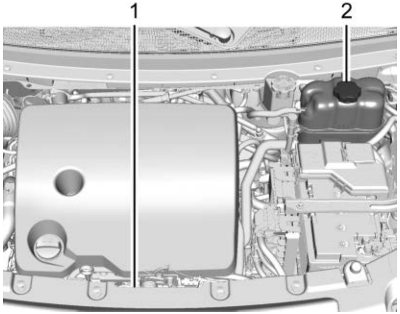
Cooling System

The cooling system allows the engine to maintain the correct working temperature.



2.0L L4 Engine

1. Engine Cooling Fan (Out of View)
2. Engine Coolant Surge Tank and Pressure Cap



3.6L V6 Engine

1. Engine Cooling Fan (Out of View)
2. Engine Coolant Surge Tank and Pressure Cap

⚠ Warning

An underhood electric fan can start up even when the engine is not running and can cause injury. Keep hands, clothing, and tools away from any underhood electric fan.

⚠ Warning

Do not touch heater or radiator hoses, or other engine parts. They can be very hot and can burn you. Do not run the engine if there is a leak; all coolant could leak out. That could cause an engine fire and can burn you. Fix any leak before driving the vehicle.

Engine Coolant

The cooling system in the vehicle is filled with DEX-COOL engine coolant. This coolant needs to be checked and replaced at appropriate intervals. See *Maintenance Schedule ⇨ 371*.

The following explains the cooling system and how to check and add coolant when it is low. If there is a problem with engine overheating, see *Engine Overheating ⇨ 303*.

What to Use

⚠ Warning

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. With plain water or the wrong mixture, the engine could get too hot but there would not be an overheat warning. The engine could catch fire and you or others could be burned.

Use a 50/50 mixture of clean, drinkable water and DEX-COOL coolant. This mixture:

- Gives freezing protection down to −37 °C (−34 °F), outside temperature.
- Gives boiling protection up to 129 °C (265 °F), engine temperature.
- Protects against rust and corrosion.
- Will not damage aluminum parts.

- Helps keep the proper engine temperature.

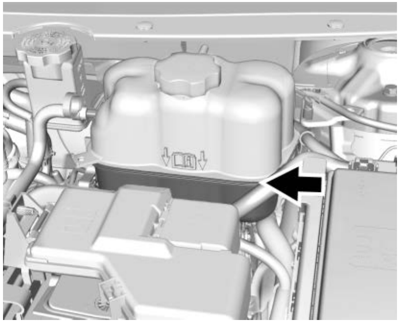
Caution

Do not use anything other than a mix of DEX-COOL coolant that meets GM Standard GMW3420 and clean, drinkable water. Anything else can cause damage to the engine cooling system and the vehicle, which would not be covered by the vehicle warranty.

Never dispose of engine coolant by putting it in the trash, pouring it on the ground, or into sewers, streams, or bodies of water. Have the coolant changed by an authorized service center, familiar with legal requirements regarding used coolant disposal. This will help protect the environment and your health.

Checking Coolant

The vehicle must be on a level surface when checking the coolant level.



Check to see if coolant is visible in the coolant surge tank. If the coolant inside the coolant surge tank is boiling, do not do anything else until it cools down. If coolant is visible but the coolant level mark is not visible, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank to the top rib on the middle of the tank, but be sure the cooling system is cool before this is done. See *Engine Overheating* ⇨ *303*.

The coolant surge tank is located in the engine compartment on the driver side of the vehicle. See *Engine Compartment Overview* ⇨ *291*.

How to Add Coolant to the Coolant Surge Tank

⚠ Warning

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

⚠ **Warning**

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. With plain water or the wrong mixture, the engine could get too hot but there would not be an overheat warning. The engine could catch fire and you or others could be burned.

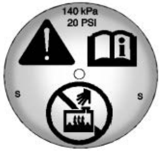
⚠ **Warning**

Spilling coolant on hot engine parts can burn you. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough.

Caution

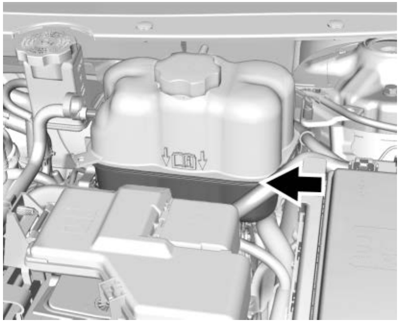
Failure to follow the specific coolant fill procedure could cause the engine to overheat and could cause system damage. If coolant is not visible in the surge tank, contact your dealer.

If no problem is found, check to see if coolant is visible in the coolant surge tank. If coolant is visible but the coolant level is not at the indicated level mark, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank, but be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it.



1. Remove the coolant surge tank pressure cap when the cooling system, including the coolant surge tank pressure cap and upper radiator hose, is no longer hot.

   Turn the pressure cap slowly counterclockwise about one-quarter of a turn. If you hear a hiss, wait for that to stop. This will allow any pressure still left to be vented out the discharge hose.
2. Keep turning the pressure cap slowly and remove it.



3. Fill the coolant surge tank with the proper mixture to the indicated level mark.
4. With the coolant surge tank pressure cap off, start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fan.

   By this time, the coolant level inside the coolant surge tank may be lower. If the level is lower, add more of the proper mixture to the coolant surge tank until the level reaches the indicated level mark.
5. Replace the pressure cap tightly.
6. Verify coolant level after the engine is shut off and the coolant is cold. If necessary, repeat coolant fill procedure Steps 1–6.

   If the coolant still is not at the proper level when the system cools down again, see your dealer.

Caution

If the pressure cap is not tightly installed, coolant loss and engine damage may occur. Be sure the cap is properly and tightly secured.

Engine Overheating

The vehicle has several indicators to warn of the engine overheating.

There is an engine coolant temperature gauge on the instrument cluster. See *Engine Coolant Temperature Gauge ⇨ 139*. The vehicle may also display a message on the Driver Information Center (DIC).

If the decision is made not to lift the hood when this warning appears, get service help right away. See *Roadside Assistance Program ⇨ 391*.

If the decision is made to lift the hood, make sure the vehicle is parked on a level surface. Then check to see if the engine cooling fan is running. If the engine is overheating, the fan should be running. If it is not, do not continue to run the engine. Have the vehicle serviced.

Caution

Do not run the engine if there is a leak in the engine cooling system. This can cause a loss of all coolant and can damage the system and vehicle. Have any leaks fixed right away.

If Steam Is Coming from the Engine Compartment

⚠ Warning

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system,

(Continued)

Warning (Continued)

including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

If No Steam Is Coming from the Engine Compartment

If an engine overheat warning is displayed but no steam can be seen or heard, the problem may not be too serious. Sometimes the engine can get a little too hot when the vehicle:

- Climbs a long hill on a hot day.
- Stops after high-speed driving.
- Idles for long periods in traffic.

If the overheat warning is displayed with no sign of steam:

1. Turn the air conditioning off.
2. Turn the heater on to the highest temperature and to the highest fan speed. Open the windows as necessary.
3. When it is safe to do so, pull off the road, shift to P (Park) or N (Neutral), and let the engine idle.

If the engine coolant temperature gauge is no longer in the overheated area, the vehicle can be driven. Continue to drive the vehicle slowly for about 10 minutes. Keep a safe distance from the vehicle in front. If the warning does not come back on, continue to drive normally and have the cooling system checked for proper fill and function.

If the warning continues, pull over, stop, and park the vehicle right away.

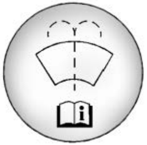
If there is no sign of steam, idle the engine for three minutes while parked. If the warning is still displayed, turn off the engine until it cools down.

Washer Fluid

What to Use

When windshield washer fluid is needed, be sure to read the manufacturer's instructions before use. If operating the vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

Adding Washer Fluid



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See *Engine Compartment Overview* ⇨ *291* for reservoir location.

Caution

- Do not use washer fluid that contains any type of water repellent coating. This can cause the wiper blades to chatter or skip.
- Do not use engine coolant (antifreeze) in the windshield washer. It can damage the windshield washer system and paint.
- Do not mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage the washer fluid tank and other parts of the washer system.
- When using concentrated washer fluid, follow the manufacturer instructions for adding water.
- Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

(Continued)

Caution (Continued)

Brakes

Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound can come and go or can be heard all the time when the vehicle is moving, except when applying the brake pedal firmly.

⚠ Warning

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Caution

Continuing to drive with worn-out brake pads could result in costly brake repair.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with the brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly tighten wheel nuts in the proper sequence to torque specifications. See *Capacities and Specifications* ⇨ *384*.

Brake pads should be replaced as complete sets.

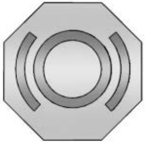
Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

Replacing Brake System Parts

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance expected can change in many other ways if the wrong replacement brake parts are installed or if parts are improperly installed.

Brake Fluid



The brake master cylinder reservoir is filled with GM approved DOT 3 brake fluid as indicated on the reservoir cap. See *Engine Compartment Overview ⇨ 291* for the location of the reservoir.

Checking Brake Fluid

With the vehicle in P (Park) on a level surface, the brake fluid level should be between the minimum and maximum marks on the brake fluid reservoir.

There are only two reasons why the brake fluid level in the reservoir may go down:

- Normal brake lining wear. When new linings are installed, the fluid level goes back up.
- A fluid leak in the brake hydraulic system. Have the brake hydraulic system fixed. With a leak, the brakes will not work well.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

⚠ Warning

If too much brake fluid is added, it can spill on the engine and burn, if the engine is hot enough. You or others could be burned, and the vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light ⇨ 144*.

Brake fluid absorbs water over time which degrades the effectiveness of the brake fluid. Replace brake fluid at the specified intervals to prevent increased stopping distance. See *Maintenance Schedule ⇨ 371*.

What to Add

Use only GM approved DOT 3 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* ⇨ *380*.

⚠ Warning

The wrong or contaminated brake fluid could result in damage to the brake system. This could result in the loss of braking leading to a possible injury. Always use the proper GM approved brake fluid.

Caution

If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Immediately wash off any painted surface.

Battery - North America

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

Refer to the replacement number on the original battery label when a new battery is needed. For replacement of the battery, see your dealer.

Stop/Start System

The vehicle has a Stop/Start system to shut off the engine to help conserve fuel. See *Starting the Engine* ⇨ *226*. It has an Absorbed Glass Mat (AGM) 12-volt battery. Installation of a standard 12-volt battery will result in reduced 12-volt battery life.

When using a 12-volt battery charger on the 12-volt AGM battery, some chargers have an AGM battery setting on the charger. If available, use the AGM setting on the charger, to limit charge voltage to 14.8 volts.

⚠ Warning

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. **WASH HANDS AFTER HANDLING.** For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

See *California Proposition 65 Warning* ⇨ *288* and the back cover.

Vehicle Storage

⚠ Warning

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are

(Continued)

Warning (Continued)

not careful. See *Jump Starting - North America* ⇨ *354* for tips on working around a battery without getting hurt.

Infrequent Usage: Remove the 12-volt battery black, negative (−) cable from the battery to keep the battery from running down.

Extended Storage: Remove the 12-volt battery black, negative (−) cable from the battery or use a battery trickle charger.

Remember to reconnect the battery when ready to drive the vehicle.

All-Wheel Drive

Transfer Case

Under normal driving conditions, transfer case fluid does not require maintenance unless there is a fluid leak or unusual noise. If required, have the transfer case serviced by your dealer.

Starter Switch Check

⚠ Warning

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle.
2. Apply both the parking brake and the regular brake.

   Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. Try to start the engine in each gear. The vehicle should start only in P (Park) or N (Neutral). If the vehicle starts in any other position, contact your dealer for service.

Automatic Transmission Shift Lock Control Function Check

⚠ Warning

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle. It should be parked on a level surface.
2. Apply the parking brake. Be ready to apply the regular brake immediately if the vehicle begins to move.
3. With the engine off, turn the ignition on, but do not start the engine. Without applying the regular brake, try to move the shift lever out of P (Park) with

normal effort. If the shift lever moves out of P (Park), contact your dealer for service.

Park Brake and P (Park) Mechanism Check

⚠ Warning

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability: With the engine running and the transmission in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.
- To check the P (Park) mechanism's holding ability: With the engine running, shift to P (Park). Then release the parking brake followed by the regular brake.

Contact your dealer if service is required.

Wiper Blade Replacement

Windshield wiper blades should be inspected for wear and cracking. See *Maintenance Schedule* ⇨ *371*.

Replacement blades come in different types and are removed in different ways. For proper type and length, see *Maintenance Replacement Parts* ⇨ *381*.

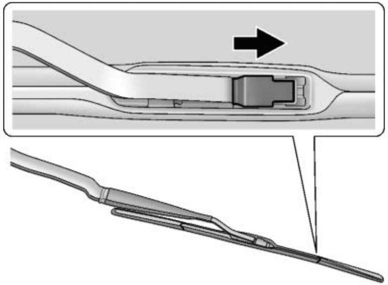
Caution

Allowing the wiper arm to touch the windshield when no wiper blade is installed could damage the windshield. Any damage that occurs would not be covered by the vehicle warranty. Do not allow the wiper arm to touch the windshield.

Front Wiper Blade Replacement

To replace the front wiper blades:

1. Pull the windshield wiper assembly away from the windshield.



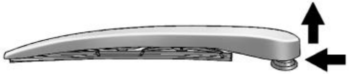
2. Lift up on the latch in the middle of the wiper blade where the wiper arm attaches.
3. With the latch open, pull the wiper blade down toward the windshield far enough to release it from the J-hooked end of the wiper arm.
4. Remove the wiper blade.
5. Reverse Steps 1–3 for wiper blade replacement.

Caution

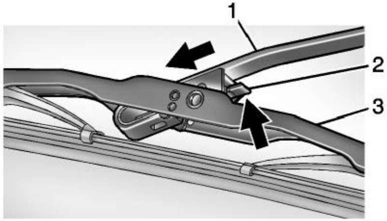
Damage may occur if the wiper blades are not in contact with the windshield before turning on the wiper system.

Rear Wiper Blade Replacement

To replace the rear wiper blade:



1. Slide a plastic tool under the cover and push upward to unsnap.
2. Slide the cover toward the wiper blade tip to unhook it from the blade assembly.
3. Remove the cover.
4. Lift the wiper arm away from the windshield.



5. Push the release lever (2) to disengage the hook and push the wiper arm (1) out of the blade assembly (3).
6. Push the new blade assembly securely on the wiper arm until the release lever clicks into place.
7. To reinstall the cover, ensure that the cover hook slides into the slot in the blade assembly.
8. Snap the cover down to secure.

Windshield Replacement

Driver Assistance Systems

If the windshield needs to be replaced and the vehicle is equipped with a front camera sensor for the Driver Assistance Systems, a GM replacement windshield is recommended. The replacement windshield must be installed according to GM specifications for proper alignment. If it is not, these systems may not work properly, they may display messages, or they may not work at all. See your dealer for proper windshield replacement.

Gas Strut(s)

This vehicle is equipped with gas strut(s) to provide assistance in lifting and holding open the hood/trunk/liftgate system in full open position.

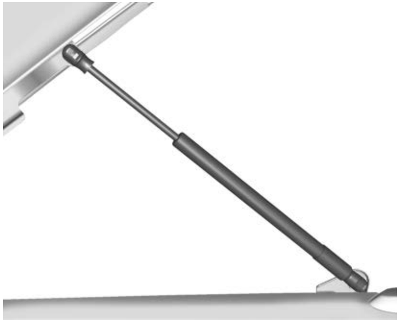
⚠ Warning

If the gas struts that hold open the hood, trunk, and/or liftgate fail, you or others could be seriously injured. Take the vehicle to your dealer for service immediately. Visually inspect the gas struts for signs of wear, cracks, or other damage periodically. Check to make sure the hood/trunk/liftgate is held open with enough force. If struts are failing to hold the hood/trunk/liftgate, do not operate. Have the vehicle serviced.

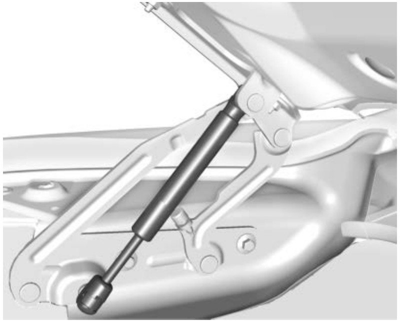
Caution

Do not apply tape or hang any objects from gas struts. Also do not push down or pull on gas struts. This may cause damage to the vehicle.

See *Maintenance Schedule* ⇨ *371*.



Hood



Trunk

Liftgate

Headlamp Aiming

Headlamp aim has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlamp aim may be affected. If adjustment to the headlamps is necessary, see your dealer.

Bulb Replacement

For the proper type of replacement bulbs, or any bulb changing procedure not listed in this section, contact your dealer.

Caution

Do not replace incandescent bulbs with aftermarket LED replacement bulbs. This can cause damage to the vehicle electrical system.

High Intensity Discharge (HID) Lighting

⚠ Warning

The High Intensity Discharge (HID) lighting system operates at a very high voltage. If you try to service any of the system components, you could be seriously injured. Have your dealer or a qualified technician service them.

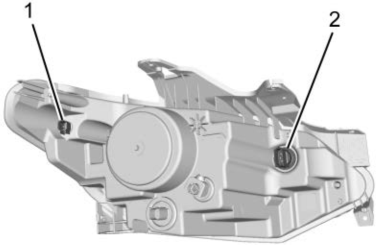
After an HID headlamp bulb has been replaced, the beam might be a slightly different shade than it was originally. This is normal.

LED Lighting

This vehicle has several LED lamps. For replacement of any LED lighting assembly, contact your dealer.

Headlamps, Front Turn Signal, and Sidemarker

The headlamp is either an HID or an LED. See “High Intensity Discharge (HID) Lighting” and “LED Lighting” earlier in this section.



Driver Side Shown, Passenger Side Similar

1. Sidemarker Bulb
2. Front Turn Signal

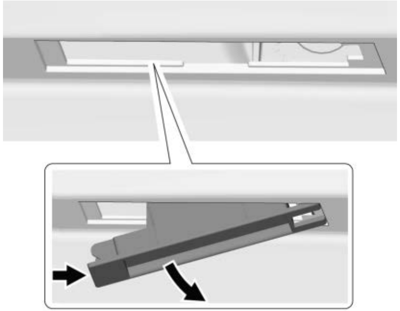
To replace the front turn signal or sidemarker:

1. Open the hood. See *Hood* ⇨ *290*.
2. Locate the bulb socket on the headlamp assembly.
3. Turn the bulb socket counterclockwise to remove it from the headlamp assembly.
4. Pull the bulb straight out from the socket.
5. Push the new bulb into the socket and reinstall the socket into the headlamp assembly by turning it clockwise.

License Plate Lamp

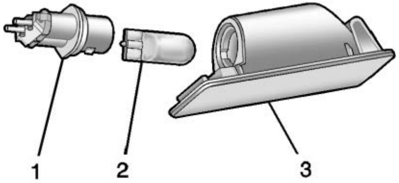
This applies only to vehicles without rear camera mirrors. All other vehicles are equipped with LED license plate lamps.

To replace one of these bulbs:



1. Push the left end of the lamp assembly toward the right.

2. Pull the lamp assembly down gently to remove it from the liftgate.



3. Turn the bulb socket (1) counterclockwise to remove it from the lamp assembly (3).
4. Pull the bulb (2) straight out of the bulb socket.
5. Push the replacement bulb straight into the bulb socket and turn the bulb socket clockwise to install it into the lamp assembly.
6. Replace the lamp in the liftgate applique engaging the right side with the clip first.
7. Push on the lamp side opposite the clip until the lamp assembly snaps into place.

Electrical System

High Voltage Devices and Wiring

⚠ Warning

Exposure to high voltage can cause shock, burns, and even death. The high voltage components in the vehicle can only be serviced by technicians with special training.

High voltage components are identified by labels. Do not remove, open, take apart, or modify these components. High voltage cable or wiring has orange covering or labels. Do not probe, tamper with, cut, or modify high voltage cable or wiring.

Electrical System Overload

The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect power devices in the vehicle.

Replace a bad fuse with a new one of the identical size and rating.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

Headlamp Wiring

An electrical overload may cause the lamps to go on and off, or in some cases to remain off. Have the headlamp wiring checked right away if the lamps go on and off or remain off.

Windshield Wipers

If the wiper motor overheats due to heavy snow or ice, the windshield wipers will stop until the motor cools and will then restart.

Although the circuit is protected from electrical overload, overload due to heavy snow or ice may cause wiper linkage damage. Always clear ice and heavy snow from the windshield before using the windshield wipers.

If the overload is caused by an electrical problem and not snow or ice, be sure to get it fixed.

Fuses and Circuit Breakers

The wiring circuits in the vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

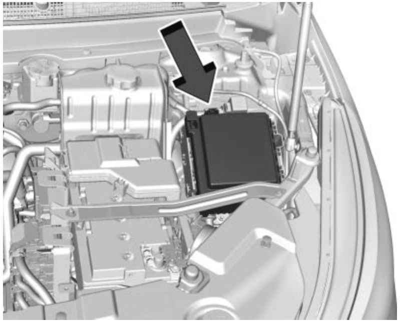
> ⚠ **Danger**
>
> Fuses and circuit breakers are marked with their ampere rating. Do not exceed the specified amperage rating when replacing fuses and circuit breakers. Use of an oversized fuse or circuit breaker can result in a vehicle fire. You and others could be seriously injured or killed.

To check a fuse, look at the silver-colored band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a new one of the identical size and rating.

Fuses of the same amperage can be temporarily borrowed from another fuse location, if a fuse goes out. Replace the fuse as soon as possible.

Engine Compartment Fuse Block

The underhood fuse block is in the engine compartment, on the driver side of the vehicle.



Caution

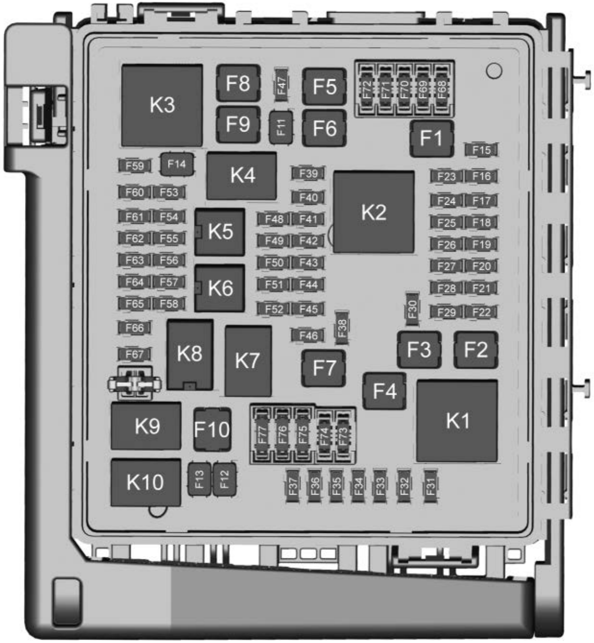
Do not pull the engine compartment fuse block lever, since it is intended only for service purposes. If pulled, vehicle malfunction may occur.

To remove the fuse block cover, press the clips on the cover and lift it straight up.

Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.

To remove fuses, use the fuse puller and pull straight out.


K3
F8
F47
F5
F72
F71
F70
F69
F68
F9
F11
F6
F1
F15
F59
F14
K4
F39
K2
F23
F16
F60
F53
F40
F24
F17
F61
F54
K5
F48
F41
F25
F18
F62
F55
F49
F42
F26
F19
F63
F56
F50
F43
F27
F20
F64
F57
K6
F51
F44
F28
F21
F65
F58
F52
F45
F30
F29
F22
F66
K8
K7
F46
F38
F3
F2
F67
F7
F4
K1
K9
F10
F77
F76
F75
F74
F73
K10
F13
F12
F37
F36
F35
F34
F33
F32
F31

The vehicle may not be equipped with all of the fuses, relays, and features shown.

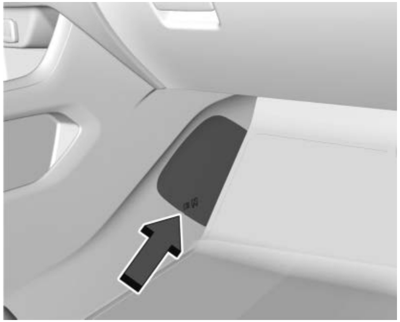
Fuses	Usage
F1	Antilock brake system pump
F2	Starter 1
F3	DC DC transformer 1
F4	–
F5	DC DC transformer 2
F6	–
F7	–
F8	–
F9	Vacuum pump
F10	Front wiper
F11	–
F12	–
F13	Starter 2
F14	–
F15	Rear wiper
F16	–
F17	–
F18	–
F19	–

Fuses	Usage
F20	–
F21	–
F22	Electronic brake control module
F23	Parking/Trailer lamps
F24	Right trailer stoplamp/Turnlamp
F25	Steering column lock
F26	–
F27	Left trailer stoplamp/Turnlamp
F28	–
F29	–
F30	Washer pump
F31	–
F32	Left low – beam headlamp
F33	Front fog lamps
F34	Horn
F35	–
F36	–
F37	Right low – beam headlamp
F38	Automatic headlamp leveling motor (if equipped)
F39	Transmission control module
F40	Left rear bus electrical center/ Ignition
F41	Instrument cluster
F42	Heating, ventilation, and air conditioning
F43	Head-up display (if equipped)
F44	Communication gateway module/ Run/Crank (if equipped)
F45	–
F46	–
F47	–
F48	–
F49	Interior rearview mirror
F50	Fuel system control module
F51	Heated steering wheel
F52	Folding seats switch
F53	–
F54	Coolant pump
F55	Air conditioning clutch
F56	Integrated chassis control module
F57	Engine control module/Ignition
F58	Transmission control module/ Ignition
F59	Engine control module battery

Fuses	Usage
F60	Engine control module – even
F61	O2 sensor 1/MAF
F62	–
F63	–
F64	Aeroshutter
F65	Engine control module powertrain 1
F66	Engine control module powertrain 2
F67	Engine control module – odd
F68	–
F69	–
F70	–
F71	–
F72	–
F73	–
F74	–
F75	–
F76	–
F77	–

Relays	Usage
K1	Starter 1
K2	Run/Crank
K3	Vacuum pump
K4	–
K5	Air conditioning
K6	Coolant pump
K7	Engine control module
K8	Folding seats
K9	–
K10	Starter 2

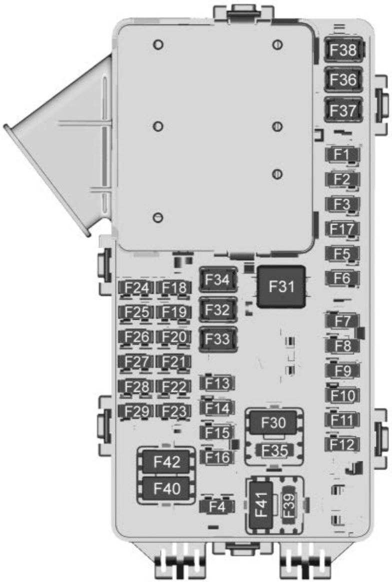
Instrument Panel Fuse Block



The instrument panel fuse block is inside the center console on the passenger side of the vehicle.

Remove the fuse access door by inserting a coin or tool into the slot of the access door.

To remove a fuse, use the fuse puller located in the Engine Compartment Fuse block.


F38
F36
F37
F1
F2
F3
F17
F5
F6
F24
F18
F34
F31
F25
F19
F32
F26
F20
F33
F7
F8
F27
F21
F9
F28
F22
F13
F10
F29
F23
F14
F30
F11
F15
F35
F12
F42
F16
F40
F4
F41
F39

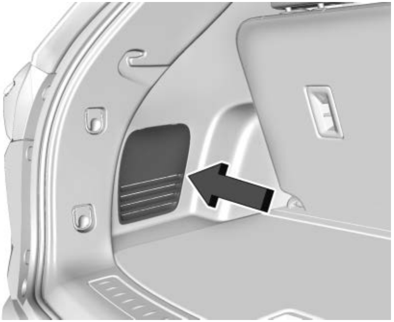
The vehicle may not be equipped with all of the fuses, relays, and features shown.

Fuses	Usage
F1	Body control module 6
F2	Diagnostic link
F3	Electric steering column lock
F4	Rear USB
F5	–
F6	Heating, ventilation, and air conditioning
F7	Body control module 3
F8	–
F9	Right front heated seat
F10	Airbag
F11	Electronic precision shift
F12	Amplifier
F13	Body control module 7
F14	Left front heated seat
F15	–
F16	Sunroof
F17	Communication gateway module (if equipped)
F18	Instrument cluster
F19	Body control module 1
F20	Wireless charger module
F21	Body control module 4
F22	Infotainment
F23	Body control module 2
F24	–
F25	Parking assist
F26	Communications integration module
F27	Video

Fuses	Usage
F28	Radio/Heating, ventilation, and air conditioning display
F29	Radio
F30	Steering wheel controls
F31	Front blower
F32	DC AC inverter
F33	Driver power seat
F34	Passenger power seat
F35	Feed/Body control module 4
F36	Electric power steering
F37	Power outlet/ Wireless charger/ Accessory
F38	Body control module 8
F39	Steering wheel controls backlighting

Circuit Breakers	Usage
F40	–
F41	–
F42	Auxiliary power outlet/Lighter

Rear Compartment Fuse Block

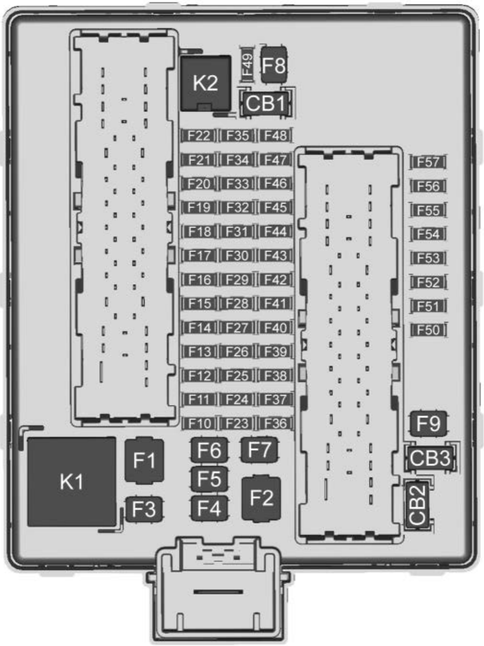


The rear compartment fuse block is behind a trim panel on the driver side of the rear storage compartment.

The trim panel is removed by prying along the top edge of the trim panel at two notched locations. Remove the trim panel to access the fuse block.

To remove a fuse, use the fuse puller in the engine compartment fuse block.

The fuse block label is on the back of the access door in the driver side rear trim panel.


K2
F49
F8
CB1
F22 F35 F48
F21 F34 F47
F20 F33 F46
F19 F32 F45
F18 F31 F44
F17 F30 F43
F16 F29 F42
F15 F28 F41
F14 F27 F40
F13 F26 F39
F12 F25 F38
F11 F24 F37
F10 F23 F36
F57
F56
F55
F54
F53
F52
F51
F50
F9
CB3
CB2
K1
F1
F3
F6
F5
F4
F7
F2

Fuses	Usage
F1	–
F2	Trailer
F3	Folding seats
F4	Rear blower

Fuses	Usage
F5	Rear drive control
F6	–
F7	Right window
F8	Rear defogger
F9	Left window
F10	–
F11	Trailer reverse
F12	USB port/Third row seats
F13	–
F14	–
F15	–
F16	–
F17	Camera
F18	–
F19	Ventilated seats
F20	–
F21	–
F22	–
F23	–
F24	Lumbar
F25	–
F26	Trailer brake lamps
F27	–
F28	Passive entry/Passive start
F29	–
F30	Canister vent
F31	–
F32	Heated mirrors
F33	USB port/Second row seats
F34	Liftgate module
F35	Fuel system control module
F36	–
F37	–
F38	Window module
F39	Rear closure
F40	Memory seat module
F41	Automatic occupancy sensor
F42	–
F43	–
F44	–
F45	Liftgate motor
F46	Rear heated seats
F47	–
F48	–
F49	–
F50	–
F51	–
F52	Semi-active dampening system module
F53	–
F54	External object calculating remote system/Side blind zone alert
F55	–

Fuses	Usage
F56	Universal remote system/Overhead console
F57	Hands free closure release

Circuit Breakers	Usage
CB1	–
CB2	–
CB3	Rear auxiliary power outlet

Relays	Usage
K1	–
K2	–

Wheels and Tires

Tires

Every new GM vehicle has high-quality tires made by a leading tire manufacturer. See the warranty manual for information regarding the tire warranty and where to get service. For additional information refer to the tire manufacturer.

⚠ Warning

- Poorly maintained and improperly used tires are dangerous.
- Overloading the tires can cause overheating as a result of too much flexing. There could be a blowout and a serious crash. See *Vehicle Load Limits ⇨ 220*.

(Continued)

Warning (Continued)

- Underinflated tires pose the same danger as overloaded tires. The resulting crash could cause serious injury. Check all tires frequently to maintain the recommended pressure. Tire pressure should be checked when the tires are cold.
- Overinflated tires are more likely to be cut, punctured, or broken by a sudden impact — such as when hitting a pothole. Keep tires at the recommended pressure.
- Worn or old tires can cause a crash. If the tread is badly worn, replace them.

(Continued)

Warning (Continued)

- Replace any tires that have been damaged by impacts with potholes, curbs, etc.
- Improperly repaired tires can cause a crash. Only the dealer or an authorized tire service center should repair, replace, dismount, and mount the tires.
- Do not spin the tires in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tires to explode.

See *Tire Pressure for High-Speed Operation* ⇨ *332* for inflation pressure adjustment for high-speed driving.

All-Season Tires

This vehicle may come with all-season tires. These tires are designed to provide good overall performance on most road surfaces and weather conditions. Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. Original equipment all-season tires can be identified by the last two characters of this TPC code, which will be “MS.”

Consider installing winter tires on the vehicle if frequent driving on snow or ice-covered roads is expected. All-season tires provide adequate performance for most winter driving conditions, but they may not offer the same level of traction or performance as winter tires on snow or ice-covered roads. See *Winter Tires* ⇨ *325*.

Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires* ⇨ *340*.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

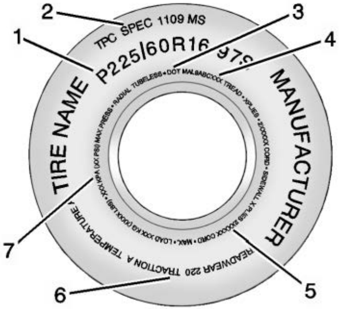
If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

Tire Sidewall Labeling

Useful information about a tire is molded into its sidewall. The examples show a typical passenger vehicle tire and a compact spare tire sidewall.


2
TPC SPEC 1109 MS
3
1
P225/60R16
97S
4
TIRE NAME
MANUFACTURER
RADIAL TUBELESS • DOT MAL8ABC0XX TREAD • XPLIES • 2XXXX CORD • SIDEWALL X PLIES 2XXXX CORD • MAX. LOAD XXX KG (XXXX LBS) • XXX KPA (XX PSI) MAX PRESS
7
TREADWEAR 220 TRACTION A TEMPERATURE A
6
5

Passenger (P-Metric) Tire Example

(1) Tire Size : The tire size is a combination of letters and numbers used to define a particular tire's width, height, aspect ratio, construction type, and service description. See the “Tire Size” illustration later in this section.

(2) TPC Spec (Tire Performance Criteria Specification) : Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

(3) DOT (Department of Transportation) : The Department of Transportation (DOT) code indicates that the tire is in compliance with the U.S. Department of Transportation Motor Vehicle Safety Standards.

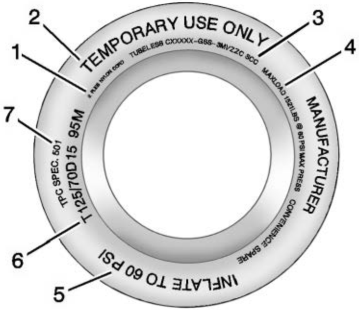
DOT Tire Date of Manufacture : The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week (01–52) and the last two digits, the year. For example, the third week of the year 2010 would have a four-digit DOT date of 0310.

(4) Tire Identification Number (TIN) : The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

(5) Tire Ply Material : The type of cord and number of plies in the sidewall and under the tread.

(6) Uniform Tire Quality Grading (UTQG) : Tire manufacturers are required to grade tires based on three performance factors: treadwear, traction, and temperature resistance. For more information see *Uniform Tire Quality Grading* ⇨ *342*.

(7) Maximum Cold Inflation Load Limit : Maximum load that can be carried and the maximum pressure needed to support that load.


2
1
7
6
5
3
4
TEMPORARY USE ONLY
TUBELESS CXXXXX-GSS-3MVZZC SCC
2 PLIES NYLON CORD
MAXLOAD 1521LBS @ 60 PSI MAX PRESS
MANUFACTURER
CONVENIENCE SPARE
INFLATE TO 60 PSI
T125/70D15 95M
TPC SPEC. 501

Compact Spare Tire Example

(1) Tire Ply Material : The type of cord and number of plies in the sidewall and under the tread.

(2) Temporary Use Only : The compact spare tire or temporary use tire should not be driven at speeds over 80 km/h (50 mph). The compact spare tire is for emergency use when a regular road tire has lost air and gone flat. If the vehicle has a compact spare tire, see *Compact Spare Tire* ⇨ *353* and *If a Tire Goes Flat* ⇨ *345*.

(3) Tire Identification Number (TIN) : The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

(4) Maximum Cold Inflation Load Limit : Maximum load that can be carried and the maximum pressure needed to support that load.

(5) Tire Inflation : The temporary use tire or compact spare tire should be inflated to 420 kPa (60 psi). For more information on tire pressure and inflation see *Tire Pressure* ⇨ *331*.

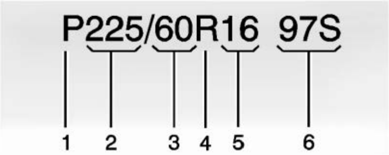
(6) Tire Size : A combination of letters and numbers define a tire's width, height, aspect ratio, construction type, and service description. The letter T as the first character in the tire size means the tire is for temporary use only.

(7) TPC Spec (Tire Performance Criteria Specification) : Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

Tire Designations

Tire Size

The following is an example of a typical passenger vehicle tire size.



(1) Passenger (P-Metric) Tire : The United States version of a metric tire sizing system. The letter P as the first character in the tire size means a passenger vehicle tire engineered to standards set by the U.S. Tire and Rim Association.

(2) Tire Width : The three-digit number indicates the tire section width in millimeters from sidewall to sidewall.

(3) Aspect Ratio : A two-digit number that indicates the tire height-to-width measurements. For example, if the tire size aspect ratio is 60, as shown in item 3 of the illustration, it would mean that the tire's sidewall is 60 percent as high as it is wide.

(4) Construction Code : A letter code is used to indicate the type of ply construction in the tire. The letter R means radial ply construction; the letter D means diagonal or bias ply construction; and the letter B means belted-bias ply construction.

(5) Rim Diameter : Diameter of the wheel in inches.

(6) Service Description : These characters represent the load index and speed rating of the tire. The load index represents the load carrying capacity a tire is certified to carry. The speed rating is the maximum speed a tire is certified to carry a load.

Tire Terminology and Definitions

Air Pressure : The amount of air inside the tire pressing outward on each square inch of the tire. Air pressure is expressed in kPa (kilopascal) or psi (pounds per square inch).

Accessory Weight : The combined weight of optional accessories. Some examples of optional accessories are automatic transmission, power windows, power seats, and air conditioning.

Aspect Ratio : The relationship of a tire's height to its width.

Belt : A rubber coated layer of cords between the plies and the tread. Cords may be made from steel or other reinforcing materials.

Bead : The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

Bias Ply Tire : A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

Cold Tire Pressure : The amount of air pressure in a tire, measured in kPa (kilopascal) or psi (pounds per square inch) before a tire has built up heat from driving. See *Tire Pressure ⇨ 331*.

Curb Weight : The weight of a motor vehicle with standard and optional equipment including the maximum capacity of fuel, oil, and coolant, but without passengers and cargo.

DOT Markings : A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation (DOT) Motor Vehicle Safety Standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand, and date of production.

GVWR : Gross Vehicle Weight Rating. See *Vehicle Load Limits ⇨ 220*.

GAWR FRT : Gross Axle Weight Rating for the front axle. See *Vehicle Load Limits ⇨ 220*.

GAWR RR : Gross Axle Weight Rating for the rear axle. See *Vehicle Load Limits ⇨ 220*.

Intended Outboard Sidewall : The side of an asymmetrical tire that must always face outward when mounted on a vehicle.

Kilopascal (kPa) : The metric unit for air pressure.

Light Truck (LT-Metric) Tire : A tire used on light duty trucks and some multipurpose passenger vehicles.

Load Index : An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

Maximum Inflation Pressure : The maximum air pressure to which a cold tire can be inflated. The maximum air pressure is molded onto the sidewall.

Maximum Load Rating : The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum Loaded Vehicle Weight : The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.

Normal Occupant Weight : The number of occupants a vehicle is designed to seat multiplied by 68 kg (150 lb). See *Vehicle Load Limits ⇨ 220*.

Occupant Distribution : Designated seating positions.

Outward Facing Sidewall : The side of an asymmetrical tire that has a particular side that faces outward when mounted on a vehicle. The side of the tire that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the other sidewall of the tire.

Passenger (P-Metric) Tire : A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

Recommended Inflation Pressure : Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard. See *Tire Pressure ⇨ 331* and *Vehicle Load Limits ⇨ 220*.

Radial Ply Tire : A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

Rim : A metal support for a tire and upon which the tire beads are seated.

Sidewall : The portion of a tire between the tread and the bead.

Speed Rating : An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

Traction : The friction between the tire and the road surface. The amount of grip provided.

Tread : The portion of a tire that comes into contact with the road.

Treadwear Indicators : Narrow bands, sometimes called wear bars, that show across the tread of a tire when only 1.6 mm

(1/16 in) of tread remains. See *When It Is Time for New Tires* ⇨ *339*.

UTQGS (Uniform Tire Quality Grading Standards) : A tire information system that provides consumers with ratings for a tire's traction, temperature, and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire. See *Uniform Tire Quality Grading* ⇨ *342*.

Vehicle Capacity Weight : The number of designated seating positions multiplied by 68 kg (150 lb) plus the rated cargo load. See *Vehicle Load Limits* ⇨ *220*.

Vehicle Maximum Load on the Tire : Load on an individual tire due to curb weight, accessory weight, occupant weight, and cargo weight.

Vehicle Placard : A label permanently attached to a vehicle showing the vehicle capacity weight and the original equipment tire size and recommended inflation pressure. See “Tire and Loading Information Label” under *Vehicle Load Limits* ⇨ *220*.

Tire Pressure

Tires need the correct amount of air pressure to operate effectively.

⚠ Warning

Neither tire underinflation nor overinflation is good. Underinflated tires, or tires that do not have enough air, can result in:

- Tire overloading and overheating which could lead to a blowout.
- Premature or irregular wear.
- Poor handling.
- Reduced fuel economy.

Overinflated tires, or tires that have too much air, can result in:

- Unusual wear.
- Poor handling.
- Rough ride.
- Needless damage from road hazards.

The Tire and Loading Information label on the vehicle indicates the original equipment tires and the correct cold tire inflation pressures. The recommended pressure is the minimum air pressure needed to support the vehicle's maximum load carrying capacity. See *Vehicle Load Limits* ⇨ *220*.

How the vehicle is loaded affects vehicle handling and ride comfort. Never load the vehicle with more weight than it was designed to carry.

When to Check

Check the pressure of the tires once a month or more. Do not forget the compact spare, if the vehicle has one. The cold compact spare tire pressure should be at 420 kPa (60 psi). See *Compact Spare Tire* ⇨ *353*.

How to Check

Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the Tire and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the inflation pressure is high, press on the metal stem in the center of the tire valve to release air.

Recheck the tire pressure with the tire gauge.

Put the valve caps back on the valve stems to keep out dirt and moisture and prevent leaks. Use only valve caps designed for the vehicle by GM. TPMS sensors could be damaged and would not be covered by the vehicle warranty.

Tire Pressure for High-Speed Operation

⚠ Warning

Driving at high speeds, 160 km/h (100 mph) or higher, puts additional strain on tires. Sustained high-speed driving causes excessive heat buildup and can cause sudden tire failure. This could cause a crash, and you or others could be killed. Some high-speed rated tires require inflation pressure adjustment for high-speed operation. When speed limits and road conditions allow the vehicle to be driven at high speeds, make sure the tires are rated for high-speed operation, are in excellent condition, and are set to the correct cold tire inflation pressure for the vehicle load.

Vehicles with 255/65R18 or 255/55R20 size tires require inflation pressure adjustment when driving the vehicle at speeds of 160 km/h (100 mph) or higher. Set the cold inflation pressure to the maximum inflation pressure shown on the tire sidewall, or 280 kPa (41 psi), whichever is lower. Return the tires to the recommended cold tire inflation pressure when high-speed driving has ended. See *Vehicle Load Limits* ⇨ *220* and *Tire Pressure* ⇨ *331*.

The maximum load and inflation pressure is molded on the tire sidewall, in small letters, near the rim flange. It will read something like this: Maximum load 690 kg (1,521 lbs) 300 kPa (44 psi) Max. Press.

Tire Pressure Monitor System

The Tire Pressure Monitor System (TPMS) uses radio and sensor technology to check tire pressure levels. The TPMS sensors monitor the air pressure in your tires and transmit tire pressure readings to a receiver located in the vehicle.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

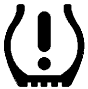
When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

See *Tire Pressure Monitor Operation* ⇨ *334*.

See *Radio Frequency Statement* ⇨ *397*.

Tire Pressure Monitor Operation

This vehicle may have a Tire Pressure Monitor System (TPMS). The TPMS is designed to warn the driver when a low tire pressure condition exists. TPMS sensors are mounted onto each tire and wheel assembly, excluding the spare tire and wheel assembly. The TPMS sensors monitor the air pressure in the tires and transmit the tire pressure readings to a receiver located in the vehicle.



When a low tire pressure condition is detected, the TPMS illuminates the low tire pressure warning light located on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ *220*.

A message to check the pressure in a specific tire displays in the Driver Information Center (DIC). The low tire pressure warning light and the DIC warning message come on at each ignition cycle until the tires are inflated to the correct inflation pressure. Using the DIC, tire pressure levels can be viewed. For additional information and details about the DIC operation and displays see *Driver Information Center (DIC)* ⇨ *151*.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This could be an early indicator that the air pressure is getting low and needs to be inflated to the proper pressure.

A Tire and Loading Information label, attached to your vehicle, shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits* ⇨ *220*, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* ⇨ *331*.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇨ *338*, *Tire Rotation* ⇨ *338* and *Tires* ⇨ *324*.

Caution

Tire sealant materials are not all the same. A non-approved tire sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tire sealant is not covered by the vehicle warranty. Always use only the GM approved tire sealant available through your dealer or included in the vehicle.

TPMS Malfunction Light and Message

The TPMS will not function properly if one or more of the TPMS sensors are missing or inoperable. When the system detects a malfunction, the low tire pressure warning light flashes for about one minute and then stays on for the remainder of the ignition cycle. A DIC warning message also displays. The malfunction light and DIC warning message come on at each ignition cycle until the problem is corrected. Some of the conditions that can cause these to come on are:

- One of the road tires has been replaced with the spare tire. The spare tire does not have a TPMS sensor. The malfunction light and DIC message should go off after the road tire is replaced and the sensor matching process is performed successfully. See “TPMS Sensor Matching Process” later in this section.
- The TPMS sensor matching process was not done or not completed successfully after rotating the tires. The malfunction light and the DIC message should go off after successfully completing the sensor matching process. See "TPMS Sensor Matching Process" later in this section.
- One or more TPMS sensors are missing or damaged. The malfunction light and the DIC message should go off when the TPMS sensors are installed and the sensor matching process is performed successfully. See your dealer for service.
- Replacement tires or wheels do not match the original equipment tires or wheels. Tires and wheels other than those recommended could prevent the TPMS from functioning properly. See *Buying New Tires* ⇨ *340*.
- Operating electronic devices or being near facilities using radio wave frequencies similar to the TPMS could cause the TPMS sensors to malfunction.

If the TPMS is not functioning properly it cannot detect or signal a low tire pressure condition. See your dealer for service if the TPMS malfunction light and DIC message come on and stay on.

Tire Fill Alert (If Equipped)

This feature provides visual and audible alerts outside the vehicle to help when inflating an underinflated tire to the recommended cold tire pressure.

When the low tire pressure warning light comes on:

1. Park the vehicle in a safe, level place.
2. Set the parking brake firmly.
3. Place the vehicle in P (Park).
4. Add air to the tire that is underinflated. The turn signal lamp will flash.

   When the recommended pressure is reached, the horn sounds once and the turn signal lamp will stop flashing and briefly turn solid.

Repeat these steps for all underinflated tires that have illuminated the low tire pressure warning light.

⚠ Warning

Overinflating a tire could cause the tire to rupture and you or others could be injured. Do not exceed the maximum pressure listed on the tire sidewall. See *Tire Sidewall Labeling* ⇨ *326* and *Vehicle Load Limits* ⇨ *220*.

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal lamp will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal lamp is still flashing, briefly press the center of the valve stem. When the recommended pressure is reached, the horn sounds once.

If the turn signal lamp does not flash within 15 seconds after starting to inflate the tire, the tire fill alert has not been activated or is not working.

If the hazard warning flashers are on, the tire fill alert visual feedback will not work properly.

The TPMS will not activate the tire fill alert properly under the following conditions:

- There is interference from an external device or transmitter.
- The air pressure from the inflation device is not sufficient to inflate the tire.
- There is a malfunction in the TPMS.
- There is a malfunction in the horn or turn signal lamps.
- The identification code of the TPMS sensor is not registered to the system.
- The battery of the TPMS sensor is low.

If the tire fill alert does not operate due to TPMS interference, move the vehicle about 1 m (3 ft) back or forward and try again. If the tire fill alert feature is not working, use a tire pressure gauge.

TPMS Sensor Matching Process

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tire/wheel position after rotating the vehicle's tires or replacing one or more of the TPMS sensors. The TPMS sensor matching process should also be performed after replacing a spare tire with a road tire containing the TPMS sensor. The malfunction light and the DIC message should go off at the next ignition cycle. The sensors are matched to the tire/wheel positions, using a TPMS relearn tool, in the following order: driver side front tire, passenger side front tire, passenger side rear tire, and driver side rear. See your dealer for service or to purchase a relearn tool. A TPMS relearn tool can also be purchased. See Tire Pressure Monitor Sensor Activation Tool at www.gmtoolsandequipment.com or call 1-800-GM TOOLS (1-800-468-6657).

There are two minutes to match the first tire/wheel position, and five minutes overall to match all four tire/wheel positions. If it takes longer, the matching process stops and must be restarted.

The TPMS sensor matching process is:

1. Set the parking brake.
2. Place the vehicle in Service Mode. See *Ignition Positions ⇨ 225*.
3. Make sure the Tire Pressure info page option is turned on. The info pages on the DIC can be turned on and off through the Options menu. See *Driver Information Center (DIC) ⇨ 151*.
4. Use the DIC controls on the right side of the steering wheel to scroll to the Tire Pressure screen under the DIC info page.
5. Press and hold ✓ in the center of the DIC controls.

   The horn sounds twice to signal the receiver is in relearn mode and the TIRE LEARNING ACTIVE message displays on the DIC screen.
6. Start with the driver side front tire.
7. Place the relearn tool against the tire sidewall, near the valve stem. Then press the button to activate the TPMS sensor.

   A horn chirp confirms that the sensor identification code has been matched to this tire and wheel position.
8. Proceed to the passenger side front tire, and repeat the procedure in Step 7.
9. Proceed to the passenger side rear tire, and repeat the procedure in Step 7.
10. Proceed to the driver side rear tire, and repeat the procedure in Step 7. The horn sounds two times to indicate the sensor identification code has been matched to the driver side rear tire, and the TPMS sensor

matching process is no longer active. The TIRE LEARNING ACTIVE message on the DIC display screen goes off.

11. Turn the vehicle off.
12. Set all four tires to the recommended air pressure level as indicated on the Tire and Loading Information label.

Tire Inspection

We recommend that the tires, including the spare tire, if the vehicle has one, be inspected for signs of wear or damage at least once a month.

Replace the tire if:

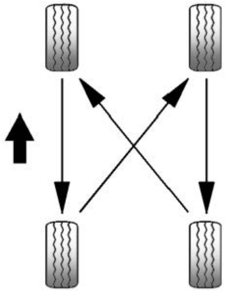
- The indicators at three or more places around the tire can be seen.
- There is cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

Tire Rotation

Tires should be rotated every 12 000 km (7,500 mi). See *Maintenance Schedule* ⇨ *371*.

Tires are rotated to achieve a uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tires* ⇨ *339* and *Wheel Replacement* ⇨ *343*.



Use this rotation pattern when rotating the tires.

If the vehicle has a compact spare tire, do not include it in the tire rotation.

Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure* ⇨ *331* and *Vehicle Load Limits* ⇨ *220*.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇨ *334*.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications* ⇨ *384*.

⚠ Warning

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

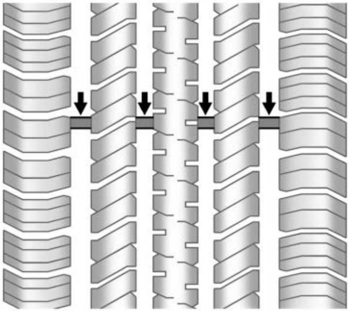
(Continued)

Warning (Continued)

Lightly coat the center of the wheel hub with wheel bearing grease after a wheel change or tire rotation to prevent corrosion or rust build-up. Do not get grease on the flat wheel mounting surface or on the wheel nuts or bolts.

When It Is Time for New Tires

Factors such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tires.



Treadwear indicators are one way to tell when it is time for new tires. Treadwear indicators appear when the tires have only 1.6 mm (1/16 in) or less of tread remaining. See *Tire Inspection* ⇨ *338* and *Tire Rotation* ⇨ *338*.

The rubber in tires ages over time. This also applies to the spare tire, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast aging takes place. GM recommends that tires, including the spare if equipped, be replaced after six years, regardless of tread wear. The tire manufacture date is the last four digits of the DOT Tire Identification Number (TIN) which is molded into one side of the tire sidewall. The first two digits represent the week (01–52) and the last two digits, the year. For example, the third week of the year 2010 would have a four-digit DOT date of 0310.

Vehicle Storage

Tires age when stored normally mounted on a parked vehicle. Park a vehicle that will be stored for at least a month in a cool, dry, clean area away from direct sunlight to slow aging. This area should be free of grease, gasoline, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tires that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tires or raise the vehicle to reduce the weight from the tires.

Buying New Tires

GM has developed and matched specific tires for the vehicle. The original equipment tires installed were designed to meet General Motors Tire Performance Criteria Specification (TPC Spec) system rating. When replacement tires are needed, GM strongly recommends buying tires with the same TPC Spec rating.

GM's exclusive TPC Spec system considers over a dozen critical specifications that impact the overall performance of the vehicle, including brake system performance, ride and handling, traction control, and tire pressure monitoring performance. GM's TPC Spec number is molded onto the tire's sidewall near the tire size. If the tires have an all-season tread design, the TPC Spec number will be followed by MS for mud and snow. See *Tire Sidewall Labeling* ⇨ *326*.

GM recommends replacing worn tires in complete sets of four. Uniform tread depth on all tires will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tires are not replaced at the same time. If proper rotation and maintenance have been done, all four tires should wear out at about the same time. See *Tire Rotation* ⇨ *338*. However, if it is necessary to replace only one axle set of worn tires, place the new tires on the rear axle.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

⚠ Warning

Tires could explode during improper service. Attempting to mount or dismount a tire could cause injury or death. Only your dealer or authorized tire service center should mount or dismount the tires.

⚠ Warning

Mixing tires of different sizes, brands, or types may cause loss of control of the vehicle, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tires on all wheels.

⚠ Warning

Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving. A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

If the vehicle tires must be replaced with a tire that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction (radial) as the original tires.

Vehicles that have a tire pressure monitoring system could give an inaccurate low-pressure warning if non-TPC Spec rated tires are installed. See *Tire Pressure Monitor System* ⇨ *333*.

The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits* ⇨ *220*.

Different Size Tires and Wheels

If wheels or tires are installed that are a different size than the original equipment wheels and tires, vehicle performance, including its braking, ride and handling characteristics, stability, and resistance to rollover may be affected. If the vehicle has electronic systems such as antilock brakes, rollover airbags, traction control, electronic stability control, or All-Wheel Drive, the performance of these systems can also be affected.

⚠ Warning

If different sized wheels are used, there may not be an acceptable level of performance and safety if

(Continued)

Warning (Continued)

tires not recommended for those wheels are selected. This increases the chance of a crash and serious injury. Only use GM specific wheel and tire systems developed for the vehicle, and have them properly installed by a GM certified technician.

See *Buying New Tires* ⇨ *340* and *Accessories and Modifications* ⇨ *289*.

Uniform Tire Quality Grading

The following information relates to the system developed by the United States National Highway Traffic Safety Administration (NHTSA), which grades tires by treadwear, traction, and temperature performance. This applies only to vehicles sold in the United States. The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading (UTQG) system does not apply to deep tread, winter tires, compact spare tires, tires with nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

Treadwear 200 Traction AA Temperature A

All Passenger Car Tires Must Conform to Federal Safety Requirements In Addition To These Grades.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Wheel Alignment and Tire Balance

The tires and wheels were aligned and balanced at the factory to provide the longest tire life and best overall performance. Adjustments to wheel alignment and tire balancing are not necessary on a regular basis. Consider an alignment check if there is unusual tire wear or the vehicle is significantly pulling to one side or the other. Some slight pull to the left or right, depending on the crown of the road and/or other road surface variations such as troughs or ruts, is normal. If the vehicle is vibrating when driving on a smooth road, the tires and wheels may need to be rebalanced. See your dealer for proper diagnosis.

Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced.

If the wheel leaks air, replace it.

Some aluminum wheels can be repaired. See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel that is needed.

Each new wheel should have the same load-carrying capacity, diameter, width, offset, and be mounted the same way as the one it replaces.

Replace wheels, wheel bolts, wheel nuts, or Tire Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

⚠ Warning

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose air, and cause loss of control, causing a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

Caution

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.

Used Replacement Wheels

⚠ Warning

Replacing a wheel with a used one is dangerous. How it has been used or how far it has been driven may be unknown. It could fail suddenly and cause a crash. When replacing wheels, use a new GM original equipment wheel.

Tire Chains

⚠ Warning

If the vehicle has a tire size other than 255/65R18, do not use tire chains. There is not enough clearance. Tire chains used on a vehicle without the proper amount of clearance can cause damage to the brakes, suspension, or other vehicle parts. The area damaged by the tire chains could cause loss of control and a crash. Use another type of traction device only if its manufacturer recommends it for the vehicle's tire size combination and road conditions. Follow that manufacturer's instructions. To avoid vehicle damage, drive slow and readjust or remove the traction device if it contacts the vehicle. Do not spin the wheels. If traction devices are used, install them on the front tires.

Caution

If the vehicle is equipped with 255/65R18 size tires, use tire chains only where legal and only when necessary. Use low profile chains that add no more than 12 mm thickness to the tire tread and inner sidewall. Use chains that are the proper size for the tires. Install them on the tires of the front axle. Do not use chains on the tires of the rear axle. Tighten them as tightly as possible with the ends securely fastened. Drive slowly and follow the chain manufacturer's instructions. If the chains contact the vehicle, stop and retighten them. If the contact continues, slow down until it stops. Driving too fast or spinning the wheels with chains on will damage the vehicle.

If a Tire Goes Flat

It is unusual for a tire to blow out while driving, especially if the tires are maintained properly. See *Tires* ⇨ *324*. If air goes out of a tire, it is much more likely to leak out slowly. But if there ever is a blowout, here are a few tips about what to expect and what to do:

If a front tire fails, the flat tire creates a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop, well off the road, if possible.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction as used in a skid. Stop pressing the accelerator pedal and steer to straighten the vehicle. It may be very bumpy and noisy. Gently brake to a stop, well off the road, if possible.

⚠ Warning

Driving on a flat tire will cause permanent damage to the tire. Re-inflating a tire after it has been driven on while severely underinflated or flat may cause a blowout and a serious crash. Never attempt to re-inflate a tire that has been driven on while severely underinflated or flat. Have your dealer or an authorized tire service center repair or replace the flat tire as soon as possible.

⚠ Warning

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tire. If it is used for

(Continued)

Warning (Continued)

anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place, well off the road, if possible. Turn on the hazard warning flashers. See *Hazard Warning Flashers* ⇨ *171*.

⚠ Warning

Changing a tire can be dangerous. The vehicle can slip off the jack and roll over or fall causing injury or death. Find a level place to change the tire. To help prevent the vehicle from moving:

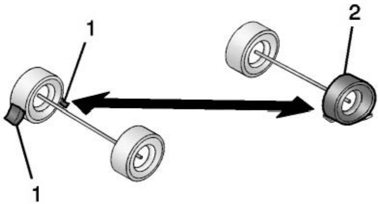
1. Set the parking brake firmly.

(Continued)

Warning (Continued)

2. Put an automatic transmission in P (Park) or a manual transmission in 1 (First) or R (Reverse).
3. Turn off the engine and do not restart while the vehicle is raised.
4. Do not allow passengers to remain in the vehicle.
5. Place wheel blocks, if equipped, on both sides of the tire at the opposite corner of the tire being changed.

When the vehicle has a flat tire (2), use the following example as a guide to assist in the placement of the wheel blocks (1), if equipped.



1. Wheel Block (If Equipped)
2. Flat Tire

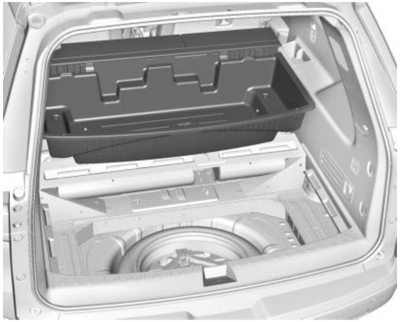
The following information explains how to repair or change a tire.

Tire Changing

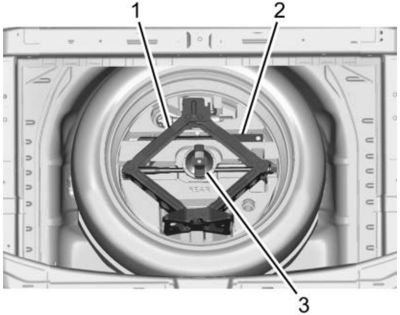
Removing the Spare Tire and Tools

To access the spare tire and tools:

1. Open the liftgate. See *Liftgate* ⇨ *43*.



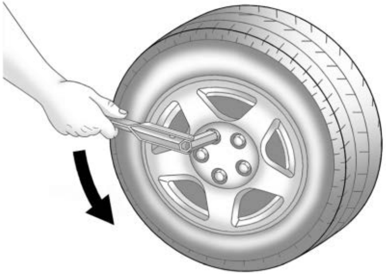
2. Lift the load floor.
3. Remove the cargo management system. See *Cargo Management System* ⇨ *120*.



4. Turn the wing nut (3) counterclockwise to remove the jack (1) and wheel wrench (2). Place the tool container near the tire being changed.
5. Remove the spare tire and place it next to the tire being changed.

Removing the Flat Tire and Installing the Spare Tire

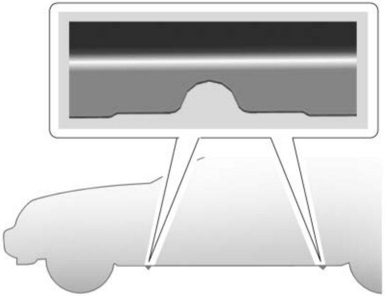
1. Do a safety check before proceeding. See *If a Tire Goes Flat* ⇨ *345*.



2. Turn the wheel wrench counterclockwise to loosen all the wheel nuts, but do not remove them yet.
3. Place the jack near the flat tire.

Caution

Make sure that the jack lift head is in the correct position or you may damage your vehicle. The repairs would not be covered by your warranty.



4. Position the jack lift head at the jack location nearest the flat tire.

   The jacking location is indicated by a half circle notch in the metal flange. The jack must not be used in any other position.

⚠ Warning

Getting under a vehicle when it is lifted on a jack is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

⚠ Warning

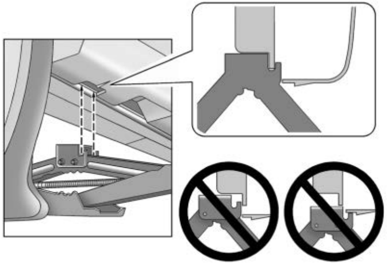
Raising the vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

⚠ Warning

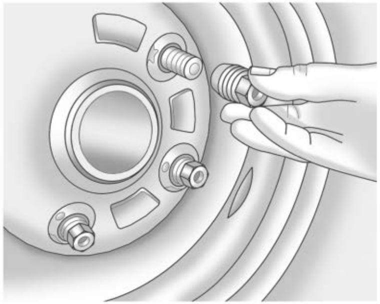
Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

Caution

Using a jack to raise the vehicle without positioning it correctly could damage your vehicle. When raising your vehicle on a jack, be sure to position it correctly under the frame and avoid contact with the plastic molding.



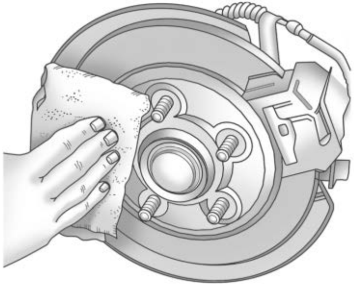
5. Turn the wheel wrench clockwise to raise the jack lift head until the slots in the jack head fit into the metal flange behind the cut out on the plastic molding. Do not raise the vehicle yet.
6. Put the compact spare tire near you.
7. Turn the wrench clockwise in the jack to raise the vehicle. Raise the vehicle far enough off the ground so that there is enough room for the spare tire to fit under the wheel well.



8. Remove all of the wheel nuts.
9. Remove the flat tire.

⚠ Warning

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.



10. Remove any rust or dirt from the wheel bolts, mounting surfaces, and spare wheel.
11. Place the compact spare tire on the wheel-mounting surface.

⚠ Warning

Never use oil or grease on bolts or nuts because the nuts might come loose. The vehicle's wheel could fall off, causing a crash.

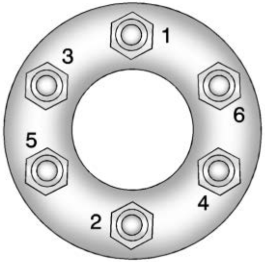
12. Reinstall the wheel nuts. Tighten each nut by hand until the wheel is held against the hub.
13. Lower the vehicle by turning the jack handle counterclockwise.

⚠ Warning

Wheel nuts that are improperly or incorrectly tightened can cause the wheels to become loose or come off. The wheel nuts should be tightened with a torque wrench to the proper torque specification after replacing. Follow the torque specification supplied by the aftermarket manufacturer when using accessory locking wheel nuts. See *Capacities and Specifications* ⇨ *384* for original equipment wheel nut torque specifications.

Caution

Improperly tightened wheel nuts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification. See *Capacities and Specifications* ⇨ *384* for the wheel nut torque specification.



14. Tighten the wheel nuts firmly in a crisscross sequence, as shown.
15. Lower the jack all the way and remove the jack from under the vehicle.
16. Tighten the wheel nuts firmly with the wheel wrench.

When reinstalling the wheel cover or center cap on the full-size tire, tighten all six plastic caps hand snug with the aid of the wheel wrench and tighten them with the wheel wrench an additional one-quarter of a turn.

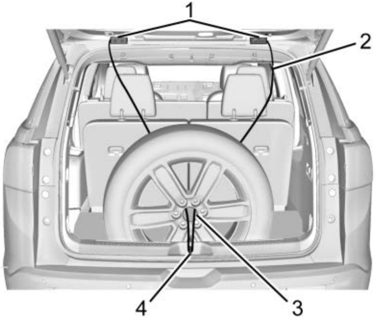
Caution

Wheel covers will not fit on the vehicle's compact spare. If you try to put a wheel cover on the compact spare, the cover or the spare could be damaged.

⚠ Warning

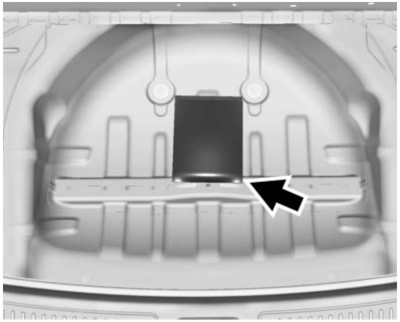
Storing a jack, a tire, or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

Storing the Flat Tire



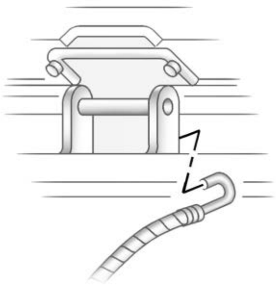
1. Liftgate Hinges
2. Cable
3. Center of the Wheel
4. Door Striker

To store the flat tire:

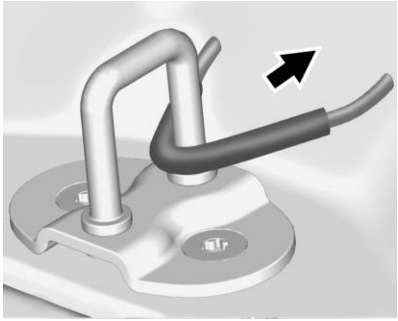


1. Remove the cable package from under the spare tire, jack, and tools.
2. Remove the small cap by tapping the back of the cap with the extension of the shaft, if the vehicle has aluminum wheels.
3. Put the flat tire in the rear storage area with the valve stem facing the rear of the vehicle.

4. Pull the cable through the door striker and the center of the wheel.



5. Lower the liftgate enough to be able to hook the cable onto the outside portion of the liftgate hinges.
6. Hook the other end of the cable onto the outside portion of the liftgate hinge on the other side of the vehicle.
7. Pull on the cable to make sure it is secure.



8. Make sure the metal tube is centered at the striker. Push the tube toward the front of the vehicle.
9. Close the liftgate and make sure it is fully latched.

The compact spare is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can.

Storing the Compact Spare Tire and Tools

To store the spare tire and tools:

1. Open the liftgate. See *Liftgate* ⇨ *43*.
2. Lift the load floor.
3. Remove the cargo management system.
4. Put back the spare tire and all tools as they were stored in the rear storage compartment.
5. Install the cargo management system and load floor.

The compact spare is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can.

Compact Spare Tire

⚠ Warning

Driving with more than one compact spare tire at a time could result in loss of braking and handling. This could lead to a crash and you or others could be injured. Use only one compact spare tire at a time.

If this vehicle has a compact spare tire, it was fully inflated when new; however, it can lose air over time. Check the inflation pressure regularly. It should be 420 kPa (60 psi).

Stop as soon as possible and check that the spare tire is correctly inflated after being installed on the vehicle. The compact spare tire is designed for temporary use only. The vehicle will perform differently with the spare tire installed and it is recommended that the vehicle speed be limited to 80 km/h (50 mph). To conserve the tread of the spare tire, have the standard tire repaired or replaced as soon as convenient and return the spare tire to the storage area.

When using a compact spare tire, the ABS and Traction Control systems may engage until the spare tire is recognized by the vehicle, especially on slippery roads. Adjust driving to reduce possible wheel slip.

Performance of the All-Wheel Drive (AWD) system will be automatically reduced to protect the system when using the compact spare. To restore the AWD and prevent excessive wear on the clutch in the AWD, replace the compact spare tire with a full-size tire as soon as possible.

Caution

When the compact spare is installed, do not take the vehicle through an automatic car wash with guide rails. The compact spare can get caught on the rails which can damage the tire, wheel, and other parts of the vehicle.

(Continued)

Caution (Continued)

Do not use the compact spare on other vehicles.

Do not mix the compact spare tire or wheel with other wheels or tires. They will not fit. Keep the spare tire and its wheel together.

Caution

Tire chains will not fit the compact spare. Using them can damage the vehicle and the chains. Do not use tire chains on the compact spare.

Jump Starting

Jump Starting - North America

For more information about the vehicle battery, see *Battery - North America* ⇨ *307*.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

⚠ Warning

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. **WASH HANDS AFTER**

(Continued)

Warning (Continued)

HANDLING. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

See *California Proposition 65 Warning* ⇨ *288* and the back cover.

⚠ Warning

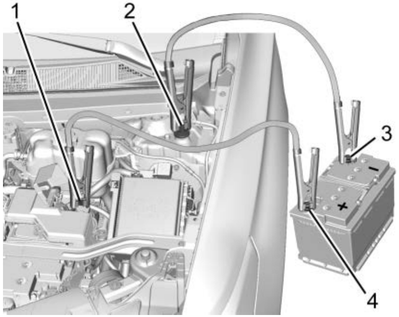
Batteries can hurt you. They can be dangerous because:

- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

If you do not follow these steps exactly, some or all of these things can hurt you.

Caution

Ignoring these steps could result in costly damage to the vehicle that would not be covered by the vehicle warranty. Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.



1. Discharged Battery Positive (+) Terminal
2. Discharged Battery Remote Negative (-) Terminal

3. Good Battery Negative (-) Terminal
4. Good Battery Positive (+) Terminal

The jump start positive (+) Terminal (1) and the negative remote negative terminal (2) for the discharged battery are on the driver side of the vehicle.

The jump start positive (+) terminal (4) and negative (-) terminal (3) are on the battery of the vehicle providing the jump start.

The positive jump start connection for the discharged battery is under a cover. Remove the cover to expose the terminal.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

Caution

If the other vehicle does not have a 12-volt system with a negative ground, both vehicles can be

(Continued)

Caution (Continued)

damaged. Only use a vehicle that has a 12-volt system with a negative ground for jump starting.

2. Position the two vehicles so that they are not touching.
3. Set the parking brake firmly and put the shift lever in P (Park) with an automatic transmission, or Neutral with a manual transmission. See *Shifting Into Park* ⇨ *230*.

Caution

If any accessories are left on or plugged in during the jump starting procedure, they could be damaged. The repairs would not be covered by the vehicle warranty. Whenever possible, turn off or unplug all accessories on either vehicle when jump starting.

4. Turn the ignition off. Turn off all lights and accessories in both vehicles, except the hazard warning flashers if needed.

⚠ Warning

An electric fan can start up even when the engine is not running and can injure you. Keep hands, clothing, and tools away from any underhood electric fan.

⚠ Warning

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a flashlight if you need more light.

Battery fluid contains acid that can burn you. Do not get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

⚠ Warning

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.

5. Connect one end of the red positive (+) cable to the positive (+) terminal on the discharged battery.
6. Connect the other end of the red positive (+) cable to the positive (+) terminal of the good battery.
7. Connect one end of the black negative (–) cable to the negative (–) terminal of the good battery.
8. Connect the other end of the black negative (–) cable to the remote negative (–) terminal for the discharged battery.
9. Start the engine in the vehicle with the good battery and run the engine at idle speed for at least four minutes.
10. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

Caution

If the jumper cables are connected or removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by the vehicle warranty. Always connect and remove the jumper cables in the correct order, making sure that the cables do not touch each other or other metal.

Jumper Cable Removal

Reverse the sequence exactly when removing the jumper cables.

After starting the disabled vehicle and removing the jumper cables, allow it to idle for several minutes.

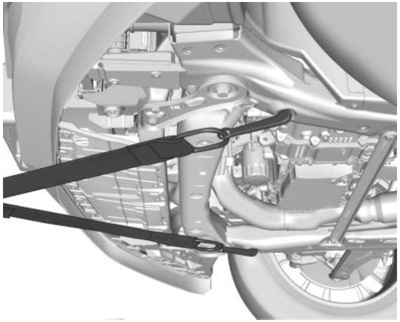
Towing the Vehicle

Caution

Incorrectly towing a disabled vehicle may cause damage. The damage would not be covered by the vehicle warranty. Do not lash or hook to suspension components. Use the proper straps around the tires to secure the vehicle. Do not drag a locked wheel/tire while loading the vehicle. Do not use a sling type lift to tow the vehicle. This could damage the vehicle.

GM recommends a flatbed tow truck to transport a disabled vehicle. Use ramps to help reduce approach angles, if necessary. A towed vehicle should have its drive wheels off the ground. Contact Roadside Assistance or a professional towing service if the disabled vehicle must be towed.

Front Attachment Points



The vehicle is equipped with specific attachment points to be used by the towing provider. These holes may be used to pull the vehicle from a flat road surface onto the flatbed tow truck.

Recreational Vehicle Towing

Recreational vehicle towing means towing the vehicle behind another vehicle – such as behind a motor home. The two most common types of recreational vehicle towing are known as dinghy towing and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels up on a device known as a dolly.

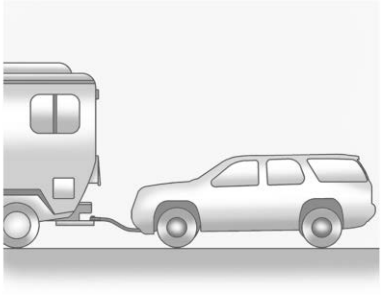
Before recreational vehicle towing, consider:

- The towing capacity of the towing vehicle. Be sure to read the tow vehicle manufacturer's recommendations.
- How far the vehicle will be towed. Some vehicles have restrictions on how far and how long they can be towed.
- The proper towing equipment. See your dealer or trailering professional for additional advice and equipment recommendations.
- Whether the vehicle is ready to be towed. Just as preparing the vehicle for a long trip, make sure the vehicle is prepared to be towed.

Caution

Use of a shield mounted in front of the vehicle grille could restrict airflow and cause damage to the transmission. The repairs would not be covered by the vehicle warranty. If using a shield, only use one that attaches to the towing vehicle.

Dinghy Towing



For vehicles being dinghy towed, the vehicle should be run at the beginning of each day and at each

RV fuel stop for about five minutes. This will ensure proper lubrication of transmission components. Reinstall the fuses to start the vehicle.

To tow the vehicle from the front with all four wheels on the ground:

1. Position the vehicle to be towed, shift the transmission to P (Park), and turn the ignition off.
2. Secure the vehicle to the towing vehicle.
3. Set the parking brake.
4. Put the ignition in ACC/ ACCESSORY.
5. Shift the transmission to N (Neutral).
6. To prevent the battery from draining while the vehicle is being towed, remove fuses F3, the DC DC transformer 1 fuse, and F59, the Engine Control Module battery fuse, from the engine compartment fuse block. See *Engine Compartment Fuse Block* ⇨ *316*.
7. Release the parking brake.

Caution

If the vehicle is towed without performing each of the steps listed under “Dinghy Towing,” the automatic transmission could be damaged. Be sure to follow all steps of the dinghy towing procedure prior to and after towing the vehicle.

Caution

If 105 km/h (65 mph) is exceeded while towing the vehicle, it could be damaged. Never exceed 105 km/h (65 mph) while towing the vehicle.

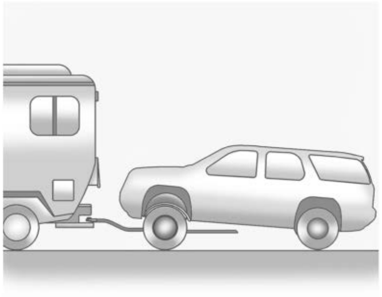
Once the destination is reached:

1. Set the parking brake.
2. Reinstall the fuses.
3. Shift the transmission to P (Park) and turn the vehicle off.
4. Disconnect the vehicle from the towing vehicle.

Caution

Do not tow a vehicle with the front drive wheels on the ground if one of the front tires is a compact spare tire. Towing with two different tire sizes on the front of the vehicle can cause severe damage to the transmission.

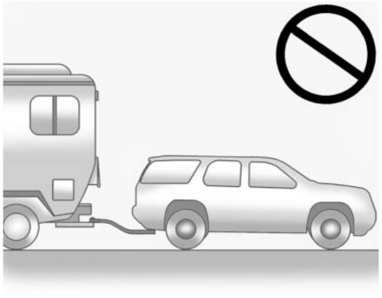
Dolly Towing

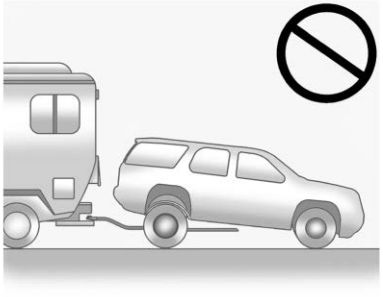


To tow the vehicle from the front with two wheels on the ground:

1. Put the front wheels on a dolly.
2. Shift the transmission to P (Park).
3. Set the parking brake.
4. Clamp the steering wheel in a straight-ahead position with a clamping device designed for towing.
5. Turn the vehicle off.
6. Secure the vehicle to the dolly.
7. Release the parking brake.

Towing the Vehicle from the Rear





Caution

Towing the vehicle from the rear could damage it. Also, repairs would not be covered by the vehicle warranty. Never have the vehicle towed from the rear.

Appearance Care

Exterior Care

Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See *Recommended Fluids and Lubricants* ⇨ *380*.

Washing the Vehicle

To preserve the vehicle's finish, wash it often and out of direct sunlight.

Caution

Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. If damage occurs, it would not be covered by the vehicle warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

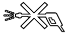
(Continued)

Caution (Continued)

Caution

Avoid using high-pressure washes closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

Caution

Do not power wash any component under the hood that has this  symbol. This could cause damage that would not be covered by the vehicle warranty.

(Continued)

Caution (Continued)

If using an automatic car wash, follow the car wash instructions. The windshield wiper and rear window wiper, if equipped, must be off. Remove any accessories that may be damaged or interfere with the car wash equipment.

Rinse the vehicle well, before washing and after, to remove all cleaning agents completely. If they are allowed to dry on the surface, they could stain.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

Finish Care

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Occasional hand waxing or mild polishing should be done to remove residue from the paint finish. See your dealer for approved cleaning products.

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or flat paint as damage can occur.

Caution

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on the vehicle.

To keep the paint finish looking new, keep the vehicle garaged or covered whenever possible.

Protecting Exterior Bright Metal Moldings

Caution

Failure to clean and protect the bright metal moldings can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The bright metal moldings on the vehicle are aluminum, chrome, or stainless steel. To prevent damage always follow these cleaning instructions:

- Be sure the molding is cool to the touch before applying any cleaning solution.
- Use only approved cleaning solutions for aluminum, chrome, or stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the moldings.
- Always dilute a concentrated cleaner according to the manufacturer’s instructions.
- Do not use cleaners that are not intended for automotive use.
- Use a nonabrasive wax on the vehicle after washing to protect and extend the molding finish.

Cleaning Exterior Lamps/ Lenses, Emblems, Decals, and Stripes

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lamps, lenses, emblems, decals, and stripes. Follow instructions under "Washing the Vehicle" previously in this section.

Lamp covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them when dry.

Do not use any of the following on lamp covers:

- Abrasive or caustic agents
- Washer fluids and other cleaning agents in higher concentrations than suggested by the manufacturer
- Solvents, alcohols, fuels, or other harsh cleaners
- Ice scrapers or other hard items
- Aftermarket appearance caps or covers while the lamps are illuminated, due to excessive heat generated

Caution

Failure to clean lamps properly can cause damage to the lamp cover that would not be covered by the vehicle warranty.

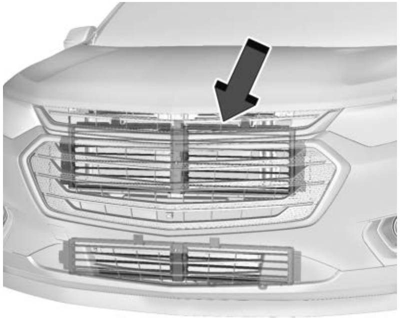
Caution

Using wax on low gloss black finish stripes can increase the gloss level and create a non-uniform finish. Clean low gloss stripes with soap and water only.

Air Intakes

Clear debris from the air intakes, between the hood and windshield, when washing the vehicle.

Shutter System



The vehicle may have a shutter system designed to help increase fuel economy. Keep the shutter system clean for proper operation.

Windshield and Wiper Blades

Clean the outside of the windshield with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. Wash the windshield thoroughly when cleaning the blades. Bugs, road grime, sap, and a buildup of vehicle wash/wax treatments may cause wiper streaking.

Replace the wiper blades if they are worn or damaged. Damage can be caused by extreme dusty conditions, sand, salt, heat, sun, snow, and ice.

Weatherstrips

Apply weatherstrip lubricant on weatherstrips to make them last longer, seal better, and not stick or squeak. Lubricate weatherstrips at least once a year. Hot, dry climates may require more frequent application. Black marks from rubber material on painted surfaces can be removed by rubbing with a clean cloth. See *Recommended Fluids and Lubricants* ⇨ *380*.

Tires

Use a stiff brush with tire cleaner to clean the tires.

Caution

Using petroleum-based tire dressing products on the vehicle may damage the paint finish and/or tires. When applying a tire dressing, always wipe off any overspray from all painted surfaces on the vehicle.

Wheels and Wheel Trim

Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

Caution

Chrome wheels and chrome wheel trim may be damaged if the vehicle is not washed after driving on roads that have been sprayed with magnesium chloride or calcium chloride. These are used on roads for conditions such as dust and ice. Always wash the chrome with soap and water after exposure.

(Continued)

Caution (Continued)

Caution

To avoid surface damage on wheels and wheel trim, do not use strong soaps, chemicals, abrasive polishes, cleaners, or brushes. Use only GM approved cleaners. Do not drive the vehicle through an automatic car wash that uses silicone carbide tire/wheel cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.

Brake System

Visually inspect brake lines and hoses for proper attachment, connections, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear and rotors for surface condition. Inspect drum brake linings/shoes for wear or cracks. Inspect all other brake parts for cracks and leaks.

Steering, Suspension, and Chassis Components

Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear at least once a year.

Inspect power steering for proper electrical connections, binding, cracks, chafing, etc.

Visually check constant velocity joint boots and axle seals for leaks.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, and the steel fuel door hinges, unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

Underbody Maintenance

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped discolorations, and small, irregular dark spots etched into the paint surface. See “Finish Care” previously in this section.

Interior Care

To prevent dirt particle abrasions, regularly clean the vehicle's interior. Immediately remove any soils. Newspapers or dark garments can transfer color to the vehicle’s interior.

Use a soft bristle brush to remove dust from knobs and crevices on the instrument cluster. Using a mild soap solution, immediately remove hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage. Apply all cleaners directly to the cleaning cloth. Do not spray cleaners on any switches or controls. Remove cleaners quickly.

Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows to get proper ventilation.

To prevent damage, do not clean the interior using the following cleaners or techniques:

- Never use a razor or any other sharp object to remove soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with too much pressure.
- Do not use laundry detergents or dishwashing soaps with degreasers. For liquid cleaners, use approximately 20 drops per 3.8 L (1 gal) of water.
  A concentrated soap solution will create streaks and attract dirt.
  Do not use solutions that contain strong or caustic soap.
- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.

Interior Glass

To clean, use a terry cloth fabric dampened with water. Wipe droplets left behind with a clean dry cloth. If necessary, use a commercial glass cleaner after cleaning with plain water.

Caution

To prevent scratching, never use abrasive cleaners on automotive glass. Abrasive cleaners or aggressive cleaning may damage the rear window defogger.

Cleaning the windshield with water during the first three to six months of ownership will reduce tendency to fog.

Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with water and mild soap.

Coated Moldings

Coated moldings should be cleaned.

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

Fabric/Carpet/Suede

Start by vacuuming the surface using a soft brush attachment. If a rotating vacuum brush attachment is being used, only use it on the floor carpet. Before cleaning, gently remove as much of the soil as possible:

- Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.
- For solid soils, remove as much as possible prior to vacuuming.

To clean:

1. Saturate a clean, lint-free colorfast cloth with water. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil in to the fabric.
4. Continue gently rubbing the soiled area until there is no longer any color transfer from the soil to the cleaning cloth.
5. If the soil is not completely removed, use a mild soap solution followed only by plain water.

If the soil is not completely removed, it may be necessary to use a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

After cleaning, use a paper towel to blot excess moisture.

Cleaning High Gloss Surfaces and Vehicle Information and Radio Displays

Use a microfiber cloth on high gloss surfaces or vehicle displays. First, use a soft bristle brush to remove dirt that can scratch the surface. Then gently clean by rubbing with a microfiber cloth. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Caution

Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the vehicle warranty.

Instrument Panel, Leather, Vinyl, Other Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces

Use a soft microfiber cloth dampened with water to remove dust and loose dirt. For a more thorough cleaning, use a soft microfiber cloth dampened with a mild soap solution.

Caution

Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage. Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, or spot removers. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim, and are not recommended.

(Continued)

Caution (Continued)

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.

Cargo Cover and Convenience Net

If equipped, wash with warm water and mild detergent. Do not use chlorine bleach. Rinse with cold water, and then dry completely.

Care of Seat Belts

Keep belts clean and dry.

⚠ Warning

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

Floor Mats

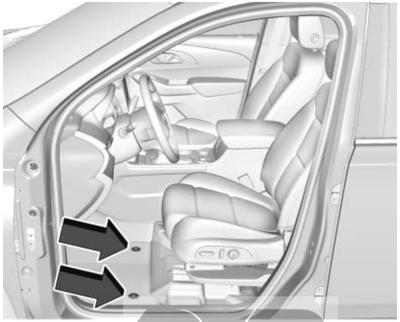
⚠ Warning

If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat usage.

- The original equipment floor mats were designed for your vehicle. If the floor mats need replacing, it is recommended that GM certified floor mats be purchased. Non-GM floor mats may not fit properly and may interfere with the accelerator or brake pedal. Always check that the floor mats do not interfere with the pedals.
- Do not use a floor mat if the vehicle is not equipped with a floor mat retainer on the driver side floor.
- Use the floor mat with the correct side up. Do not turn it over.
- Do not place anything on top of the driver side floor mat.
- Use only a single floor mat on the driver side.
- Do not place one floor mat on top of another.

Button Retainer



Some vehicles have floor mats with a button-type retainer.

Removing and Replacing the Floor Mat

1. Pull up on the rear of the mat to unlock and remove.
2. Reinstall the floor mat by lining up the floor mat opening over the carpet retainer and snapping into position.
3. Make sure the floor mat is properly secured. Verify the floor mat does not interfere with the pedals.

Service and Maintenance

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General Information

Your vehicle is an important investment. This section describes the required maintenance for the vehicle. Follow this schedule to help protect against major repair expenses resulting from neglect or inadequate maintenance. It may also help to maintain the value of the vehicle if it is sold. It is the responsibility of the owner to have all required maintenance performed.

Your dealer has trained technicians who can perform required maintenance using genuine replacement parts. They have up-to-date tools and equipment for fast and accurate diagnostics. Many dealers have extended evening and Saturday hours, courtesy transportation, and online scheduling to assist with service needs.

Your dealer recognizes the importance of providing competitively priced maintenance and repair services. With trained technicians, the dealer is the place for routine maintenance such as oil changes and tire rotations and additional maintenance items like tires, brakes, batteries, and wiper blades.

Caution

Damage caused by improper maintenance can lead to costly repairs and may not be covered by the vehicle warranty. Maintenance intervals, checks, inspections, recommended fluids, and lubricants are important to keep the vehicle in good working condition.

Do not have chemical flushes that are not approved by GM performed on the vehicle. The use of flushes, solvents, cleaners, or lubricants that are not approved by GM could damage the vehicle, requiring expensive repairs that are not covered by the vehicle warranty.

The Tire Rotation and Required Services are the responsibility of the vehicle owner. It is recommended to have your dealer perform these services every 12 000 km/7,500 mi. Proper vehicle maintenance helps to keep the vehicle in good working condition, improves fuel economy, and reduces vehicle emissions.

Because of the way people use vehicles, maintenance needs vary. There may need to be more frequent checks and services. The Additional Required Services - Normal are for vehicles that:

- Carry passengers and cargo within recommended limits on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ *220*.
- Are driven on reasonable road surfaces within legal driving limits.
- Use the recommended fuel. See *Recommended Fuel (3.6L V6 Engine)* ⇨ *272* or *Recommended Fuel (2.0L L4 Engine)* ⇨ *272*.

Refer to the information in the Maintenance Schedule Additional Required Services - Normal chart.

The Additional Required Services - Severe are for vehicles that are:

- Mainly driven in heavy city traffic in hot weather.
- Mainly driven in hilly or mountainous terrain.
- Frequently towing a trailer.
- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Refer to the information in the Maintenance Schedule Additional Required Services - Severe chart.

⚠ Warning

Performing maintenance work can be dangerous and can cause serious injury. Perform maintenance work only if the required information, proper tools, and equipment are available. If they are not, see your dealer to have a trained technician do the work. See *Doing Your Own Service Work* ⇨ *289*.

Maintenance Schedule

Owner Checks and Services

At Each Fuel Stop

- Check the engine oil level. See *Engine Oil* ⇨ *294*.

Once a Month

- Check the tire inflation pressures. See *Tire Pressure* ⇨ *331*.
- Inspect the tires for wear. See *Tire Inspection* ⇨ *338*.
- Check the windshield washer fluid level. See *Washer Fluid* ⇨ *304*.

Engine Oil Change

When the CHANGE ENGINE OIL SOON message displays, have the engine oil and filter changed within the next 1 000 km/600 mi. If driven under the best conditions, the engine oil life system may not indicate the need for vehicle service for up to a year. The engine oil and filter must be changed at least once a year and the oil life system must be reset. Your trained dealer technician can perform this work. If the engine oil life system is reset accidentally, service the vehicle within 5 000 km/3,000 mi since the last service. Reset the oil life system when the oil is changed. See *Engine Oil Life System* ⇨ *296*.

Air Conditioning Desiccant (Replace Every Seven Years)

The air conditioning system requires maintenance every seven years. This service requires replacement of the desiccant to help the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer.

Tire Rotation and Required Services Every 12 000 km/ 7,500 mi

Rotate the tires, if recommended for the vehicle, and perform the following services. See *Tire Rotation* ⇨ *338*.

- Check engine oil level and oil life percentage. If needed, change engine oil and filter, and reset oil life system. See *Engine Oil* ⇨ *294* and *Engine Oil Life System* ⇨ *296*.
- Check engine coolant level. See *Cooling System* ⇨ *299*.
- Check windshield washer fluid level. See *Washer Fluid* ⇨ *304*.
- Check tire inflation pressures. See *Tire Pressure* ⇨ *331*.
- Inspect tire wear. See *Tire Inspection* ⇨ *338*.

- Visually check for fluid leaks.
- Inspect engine air cleaner filter. See *Engine Air Cleaner/Filter* ⇨ *298*.
- Inspect brake system. See *Exterior Care* ⇨ *360*.
- Visually inspect steering, suspension, and chassis components for damage, including cracks or tears in the rubber boots, loose or missing parts, or signs of wear at least once a year. See *Exterior Care* ⇨ *360*.
- Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.
- Visually inspect halfshafts and drive shafts for excessive wear, lubricant leaks, and/or damage including: tube dents or cracks, constant velocity joint or universal joint looseness, cracked or missing boots, loose or missing boot clamps, center bearing excessive looseness, loose or missing fasteners, and axle seal leaks.
- Check restraint system components. See *Safety System Check* ⇨ *83*.
- Visually inspect fuel system for damage or leaks.
- Visually inspect exhaust system and nearby heat shields for loose or damaged parts.
- Lubricate body components. See *Exterior Care* ⇨ *360*.
- Check starter switch. See *Starter Switch Check* ⇨ *308*.
- Check parking brake and automatic transmission park mechanism. See *Park Brake and P (Park) Mechanism Check* ⇨ *309*.
- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect gas strut for signs of wear, cracks, or other damage. Check the hold open ability of the strut. If the hold open ability is low, service the gas strut. See *Gas Strut(s)* ⇨ *311*.
- Inspect sunroof track and seal, if equipped. See *Sunroof* ⇨ *58*.

Maintenance Schedule Additional Required Services - Normal	12 000 km/7,500 mi	24 000 km/15,000 mi	36 000 km/22,500 mi	48 000 km/30,000 mi	60 000 km/37,500 mi	72 000 km/45,000 mi	84 000 km/52,500 mi	96 000 km/60,000 mi	108 000 km/67,500 mi	120 000 km/75,000 mi	132 000 km/82,500 mi	144 000 km/90,000 mi	156 000 km/97,500 mi	168 000 km/105,000 mi	180 000 km/112,500 mi	192 000 km/120,000 mi	204 000 km/127,500 mi	216 000 km/135,000 mi	228 000 km/142,500 mi	240 000 km/150,000 mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Replace engine air cleaner filter. (3)						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires. (2.0L L4 Engine)								✓								✓				
Replace spark plugs. Inspect spark plug wires. (3.6L V6 Engine)													✓							
Drain and fill engine cooling system. (4)																				✓
Visually inspect accessory drive belts. (5)																				✓
Replace brake fluid. (6)																				
Replace windshield wiper blades. (7)		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Replace hood and/or body lift support gas struts.										✓										✓

Footnotes — Maintenance Schedule Additional Required Services - Normal

(1) Or every two years, whichever comes first. More frequent passenger compartment air filter replacement may be needed if driving in areas with heavy traffic, poor air quality, high dust levels, or environmental allergens. Passenger compartment air filter replacement may also be needed if there is reduced airflow, window fogging, or odors. Your GM dealer can help determine when to replace the filter.

(2) Check all fuel and vapor lines and hoses for proper hook-up, routing, and condition.

(3) Or every four years, whichever comes first. If driving in dusty conditions, inspect the filter at each oil change or more often as needed.

(4) Or every five years, whichever comes first. See *Cooling System ⇨ 299*.

(5) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(6) Replace brake fluid every five years. See *Brake Fluid ⇨ 306*.

(7) Or every 12 months, whichever comes first.. See *Wiper Blade Replacement ⇨ 309*.

Maintenance Schedule Additional Required Services - Severe	12 000 km/7,500 mi	24 000 km/15,000 mi	36 000 km/22,500 mi	48 000 km/30,000 mi	60 000 km/37,500 mi	72 000 km/45,000 mi	84 000 km/52,500 mi	96 000 km/60,000 mi	108 000 km/67,500 mi	120 000 km/75,000 mi	132 000 km/82,500 mi	144 000 km/90,000 mi	156 000 km/97,500 mi	168 000 km/105,000 mi	180 000 km/112,500 mi	192 000 km/120,000 mi	204 000 km/127,500 mi	216 000 km/135,000 mi	228 000 km/142,500 mi	240 000 km/150,000 mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Replace engine air cleaner filter. (3)						✓						✓						✓		
Change automatic transmission fluid.						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires. (2.0L L4 Engine)								✓								✓				
Replace spark plugs. Inspect spark plug wires. (3.6L V6 Engine)													✓							
Drain and fill engine cooling system. (4)																				✓
Visually inspect accessory drive belts. (5)																				✓
Replace brake fluid. (6)																				
Replace windshield wiper blades. (7)		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Replace hood and/or body lift support gas struts.										✓										✓

Footnotes — Maintenance Schedule Additional Required Services - Severe

(1) Or every two years, whichever comes first. More frequent passenger compartment air filter replacement may be needed if driving in areas with heavy traffic, poor air quality, high dust levels, or environmental allergens. Passenger compartment air filter replacement may also be needed if there is reduced airflow, window fogging, or odors. Your GM dealer can help determine when to replace the filter.

(2) Check all fuel and vapor lines and hoses for proper hook-up, routing, and condition.

(3) Or every four years, whichever comes first. If driving in dusty conditions, inspect the filter at each oil change or more often as needed.

(4) Or every five years, whichever comes first. See *Cooling System ⇨ 299*.

(5) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(6) Replace brake fluid every five years. See *Brake Fluid ⇨ 306*.

(7) Or every 12 months, whichever comes first.. See *Wiper Blade Replacement ⇨ 309*.

Special Application Services

- Severe Commercial Use Vehicles Only: Lubricate chassis components every oil change.
- Have underbody flushing service performed. See "Underbody Maintenance" in *Exterior Care ⇨ 360*.

Additional Maintenance and Care

Your vehicle is an important investment and caring for it properly may help to avoid future costly repairs. To maintain vehicle performance, additional maintenance services may be required.

It is recommended that your dealer perform these services — their trained dealer technicians know your vehicle best. Your dealer can also perform a thorough assessment with a multi-point inspection to recommend when your vehicle may need attention.

The following list is intended to explain the services and conditions to look for that may indicate services are required.

Battery

The 12-volt battery supplies power to start the engine and operate any additional electrical accessories.

- To avoid break-down or failure to start the vehicle, maintain a battery with full cranking power.
- Trained dealer technicians have the diagnostic equipment to test the battery and ensure that the connections and cables are corrosion-free.

Belts

- Belts may need replacing if they squeak or show signs of cracking or splitting.
- Trained dealer technicians have access to tools and equipment to inspect the belts and recommend adjustment or replacement when necessary.

Brakes

Brakes stop the vehicle and are crucial to safe driving.

- Signs of brake wear may include chirping, grinding, or squealing noises, or difficulty stopping.
- Trained dealer technicians have access to tools and equipment to inspect the brakes and recommend quality parts engineered for the vehicle.

Fluids

Proper fluid levels and approved fluids protect the vehicle's systems and components. See *Recommended Fluids and Lubricants* ⇨ *380* for GM approved fluids.

- Engine oil and windshield washer fluid levels should be checked at every fuel fill.
- Instrument cluster lights may come on to indicate that fluids may be low and need to be filled.

Hoses

Hoses transport fluids and should be regularly inspected to ensure that there are no cracks or leaks. With a multi-point inspection, your dealer can inspect the hoses and advise if replacement is needed.

Lamps

Properly working headlamps, taillamps, and brake lamps are important to see and be seen on the road.

- Signs that the headlamps need attention include dimming, failure to light, cracking, or damage. The brake lamps need to be checked periodically to ensure that they light when braking.
- With a multi-point inspection, your dealer can check the lamps and note any concerns.

Shocks and Struts

Shocks and struts help aid in control for a smoother ride.

- Signs of wear may include steering wheel vibration, bounce/ sway while braking, longer stopping distance, or uneven tire wear.
- As part of the multi-point inspection, trained dealer technicians can visually inspect the shocks and struts for signs of leaking, blown seals, or damage, and can advise when service is needed.

Tires

Tires need to be properly inflated, rotated, and balanced. Maintaining the tires can save money and fuel, and can reduce the risk of tire failure.

- Signs that the tires need to be replaced include three or more visible treadwear indicators; cord or fabric showing through the rubber; cracks or cuts in the tread or sidewall; or a bulge or split in the tire.
- Trained dealer technicians can inspect and recommend the right tires. Your dealer can also provide tire/wheel balancing services to ensure smooth vehicle operation at all speeds. Your dealer sells and services name brand tires.

Vehicle Care

To help keep the vehicle looking like new, vehicle care products are available from your dealer. For information on how to clean and protect the vehicle's interior and exterior, see *Interior Care* ⇨ *364* and *Exterior Care* ⇨ *360*.

Wheel Alignment

Wheel alignment is critical for ensuring that the tires deliver optimal wear and performance.

- Signs that the alignment may need to be adjusted include pulling, improper vehicle handling, or unusual tire wear.
- Your dealer has the required equipment to ensure proper wheel alignment.

Windshield

For safety, appearance, and the best viewing, keep the windshield clean and clear.

- Signs of damage include scratches, cracks, and chips.
- Trained dealer technicians can inspect the windshield and recommend proper replacement if needed.

Wiper Blades

Wiper blades need to be cleaned and kept in good condition to provide a clear view.

- Signs of wear include streaking, skipping across the windshield, and worn or split rubber.
- Trained dealer technicians can check the wiper blades and replace them when needed.

Recommended Fluids, Lubricants, and Parts

Recommended Fluids and Lubricants

Usage	Fluid/Lubricant
Automatic Transmission	DEXRON-VI Automatic Transmission Fluid.
Engine Coolant	50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See *Cooling System* ⇨ *299*.
Engine Oil	Engine oil meeting the dexos1 specification of the proper SAE viscosity grade. ACDelco dexos1 full synthetic is recommended. See *Engine Oil* ⇨ *294*.
Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor, and Release Pawl	Lubriplate Lubricant Aerosol (GM Part No. 89021668, in Canada 89021674) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Hydraulic Brake System	DOT 3 Hydraulic Brake Fluid (GM Part No. 19353126, in Canada 19353127).
Key Lock Cylinders, Hood and Door Hinges	Multi-Purpose Lubricant, Superlube (GM Part No. 12346241, in Canada 10953474).
Weatherstrip Conditioning	Weatherstrip lubricant (GM Part No. 3634770, in Canada 10953518) or equivalent.
Windshield Washer	Automotive windshield washer fluid that meets regional freeze protection requirements.

Maintenance Replacement Parts

Replacement parts identified below by name, part number, or specification can be obtained from your dealer.

Part	GM Part Number	ACDelco Part Number
Engine Air Cleaner/Filter	23321606	A3212C
Engine Oil Filter		
2.0L L4 Engine	12640445	PF64
3.6L V6 Engine	19330000	PF63E
Passenger Compartment Air Filter	13508023	CF185
Spark Plugs		
2.0L L4 Engine	12647827	41-125
3.6L V6 Engine	12622561	41-109
Wiper Blades		
Front Driver – 60.0 cm (23.6 in)	84142870	—
Front Passenger – 50.0 cm (19.7 in)	23360287	—
Rear – 25.0 cm (9.8 in)	84166522	—

Maintenance Records

After the scheduled services are performed, record the date, odometer reading, who performed the service, and the type of services performed in the boxes provided. Retain all maintenance receipts.

Date	Odometer Reading	Serviced By	Services Performed

Technical Data

Vehicle Identification

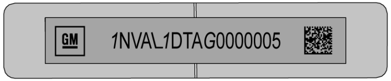
Vehicle Identification Number (VIN) 383
Service Parts Identification Label 383

Vehicle Data

Capacities and Specifications 384
Engine Drive Belt Routing 386

Vehicle Identification

Vehicle Identification Number (VIN)



This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and Service Parts labels and certificates of title and registration.

Engine Identification

The eighth character in the VIN is the engine code. This code identifies the vehicle's engine, specifications, and replacement parts. See “Engine Specifications” under *Capacities and Specifications* ⇨ *384* for the vehicle's engine code.

Service Parts Identification Label

There may be a label on the inside of the glove box that contains the following information:

- Vehicle Identification Number (VIN)
- Model designation
- Paint information
- Production options and special equipment

If there is no label, there is a barcode on the certification label on the center (B) pillar to scan for this same information.

Vehicle Data

Capacities and Specifications

The following approximate capacities are given in metric and English conversions. See *Recommended Fluids and Lubricants* ⇨ *380* for more information.

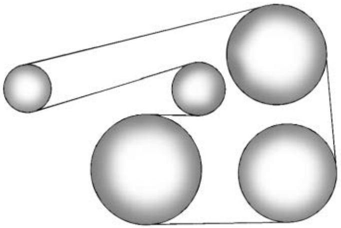
Application	Capacities	
	Metric	**English**
Air Conditioning Refrigerant	For the air conditioning system refrigerant type and charge amount, see the refrigerant label under the hood. See your dealer for more information.	
Cooling System		
2.0L L4 Engine	11.1 L	11.7 qt
3.6L V6 Engine - not equipped with the V92 towing package	14.6 L	15.4 qt
3.6L V6 Engine - equipped with the V92 towing package	16.7 L	17.6 qt
Engine Oil with Filter		
2.0L L4 Engine	4.7 L	5.0 qt
3.6L V6 Engine	5.7 L	6.0 qt
Fuel Tank		
Front-Wheel Drive	73.4 L	19.4 gal
All-Wheel Drive	82.1 L	21.7 gal

Application	Capacities	
	Metric	English
Transfer Case Fluid	0.85 L	0.9 qt
Wheel Nut Torque	190 N•m	140 lb ft
All capacities are approximate. When adding, be sure to fill to the approximate level, as recommended in this manual. Recheck fluid level after filling.		

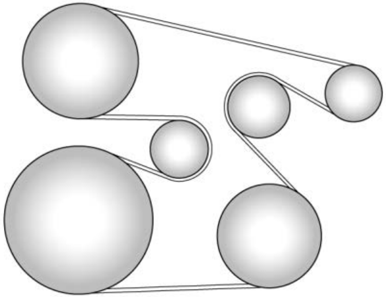
Engine Specifications

Engine	VIN Code	Transmission	Spark Plug Gap
2.0L L4 Engine	X	Automatic	0.75–0.90 mm (0.030–0.035 in)
3.6L V6 Engine	W	Automatic	0.95–1.10 mm (0.037–0.043 in)

Engine Drive Belt Routing



2.0L L4 Engine



3.6L V6 Engine

Customer Information

Customer Information

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Customer Information

Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Chevrolet. Normally, any concerns with the sales transaction or the operation of the vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE : Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service, or parts manager, contact the owner of your dealership or the general manager.

STEP TWO : If after contacting a member of dealership management, it appears your concern cannot be resolved by your dealership without further help, in the U.S., call the Chevrolet Customer Assistance Center at 1-800-222-1020. In Canada, call General Motors of Canada Customer Care Centre at 1-800-263-3777 (English), or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Have the following information available to give the Customer Assistance representative:

- Vehicle Identification Number (VIN). This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.
- Dealership name and location.
- Vehicle delivery date and present mileage.

When contacting Chevrolet, remember that your concern will likely be resolved at a dealer's facility. That is why we suggest following Step One first.

STEP THREE — U.S. Owners : Both General Motors and your dealer are committed to making sure you are completely satisfied with your new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you can file with the Better Business Bureau (BBB) Auto Line Program to enforce your rights.

The BBB Auto Line Program is an out-of-court program administered by the Council of Better Business Bureaus to settle automotive disputes regarding vehicle repairs or the interpretation of the New Vehicle Limited Warranty. Although you may be required to resort to this informal dispute resolution program prior to filing a court action, use of the program is free of charge and your case will generally be heard within 40 days. If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you.

You may contact the BBB Auto Line Program using the toll-free telephone number or write them at the following address:

BBB Auto Line Program
Council of Better Business
Bureaus, Inc.
3033 Wilson Boulevard
Suite 600
Arlington, VA 22201

Telephone: 1-800-955-5100
http://www.bbb.org/council/programs-services/dispute-handling-and-resolution/bbb-auto-line

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage, and other factors. General Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

STEP THREE — Canadian Owners : In the event that you do not feel your concerns have been addressed after following the procedure outlined in Steps One and Two, General Motors of Canada Company wants you to be aware of its participation in a no-charge Mediation/Arbitration Program. General Motors of Canada Company has committed to binding arbitration of owner disputes involving factory-related vehicle service claims. The program provides for the review of the facts involved by an impartial third party arbiter, and may include an informal hearing before the arbiter. The program is designed so that the entire dispute settlement process, from the time you file your complaint to the final decision, should be completed in about 70 days. We believe our impartial program offers advantages over courts in most jurisdictions because it is informal, quick, and free of charge.

For further information concerning eligibility in the Canadian Motor Vehicle Arbitration Plan (CAMVAP), call toll-free 1-800-207-0685, or call the General Motors Customer Care Centre, 1-800-263-3777 (English), 1-800-263-7854 (French),
or write to:

The Mediation/Arbitration Program
c/o Customer Care Centre
General Motors of Canada Company
Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Your inquiry should be accompanied by the Vehicle Identification Number (VIN).

Customer Assistance Offices

Chevrolet encourages customers to call the toll-free number for assistance. However, if a customer wishes to write or e-mail Chevrolet, the letter should be addressed to:

United States and Puerto Rico

Chevrolet Motor Division
Chevrolet Customer Assistance Center
P.O. Box 33170
Detroit, MI 48232-5170
www.Chevrolet.com

1-800-222-1020
1-800-833-2438 (For Text Telephone Devices (TTYs))
Roadside Assistance:
1-800-243-8872

From U.S. Virgin Islands:

1-800-496-9994

Canada

General Motors of Canada
Company
Customer Care Centre,
Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7
www.gm.ca

1-800-263-3777 (English)
1-800-263-7854 (French)
1-800-263-3830 (For Text
Telephone devices (TTYs))
Roadside Assistance:
1-800-268-6800

Overseas

Please contact the local General Motors Business Unit.

Customer Assistance for Text Telephone (TTY) Users

To assist customers who are deaf, hard of hearing, or speech-impaired and who use Text Telephones (TTYs), Chevrolet has TTY equipment available at its Customer Assistance Center. Any TTY user in the U.S. can communicate with Chevrolet by dialing: 1-800-833-2438. TTY users in Canada can dial 1-800-263-3830.

Online Owner Center

Online Owner Experience (U.S.) my.chevrolet.com

The Chevrolet online owner experience allows interaction with Chevrolet and keeps important vehicle-specific information in one place.

Membership Benefits

🚗 **:** Download owner's manuals and view vehicle-specific how-to videos.

🔧 **:** View maintenance schedules, alerts, and Vehicle Diagnostic Information. Schedule service appointments.

📄 **:** View and print dealer-recorded service records and self-recorded service records.

🤝 **:** Select a preferred dealer and view locations, maps, phone numbers, and hours.

🛡 **:** Track your vehicle's warranty information.

⚑ **:** View active recalls by Vehicle Identification Number (VIN). See *Vehicle Identification Number (VIN)* ➩ *383*.

✱ **:** View GM Card, SiriusXM Satellite radio (if equipped), and OnStar account information (if equipped).

💬 **:** Chat with online help representatives.

See my.chevrolet.com to register your vehicle.

Chevrolet Owner Centre (Canada) www.chevroletowner.ca

Visit the Chevrolet Owner Centre:

- Chat live with online help representatives.

- Locate owner resources such as lease-end, financing, and warranty information.
- Retrieve your favorite articles, quizzes, tips, and multimedia galleries organized into the Featured Articles and Auto Care Sections.
- Download owner's manuals.
- Find the Chevrolet-recommended maintenance services.

GM Mobility Reimbursement Program

GENERAL MOTORS MOBILITY

This program is available to qualified applicants for cost reimbursement, up to certain limits, of eligible aftermarket adaptive equipment required for the vehicle, such as hand controls or a wheelchair/scooter lift for the vehicle.

To learn about the GM Mobility program, see www.gmmobility.com or call the GM Mobility Assistance Center at 1-800-323-9935. Text Telephone (TTY) users, call 1-800-833-9935.

General Motors of Canada also has a Mobility program. See www.gm.ca or call 1-800-GM-DRIVE (800-463-7483) for details. TTY users call 1-800-263-3830.

Roadside Assistance Program

For U.S.-purchased vehicles, call 1-800-243-8872. (Text Telephone (TTY): 1-888-889-2438.)

For Canadian-purchased vehicles, call 1-800-268-6800.

Service is available 24 hours a day, 365 days a year.

Calling for Assistance

When calling Roadside Assistance, have the following information ready:

- Your name, home address, and home telephone number
- Telephone number of your location
- Location of the vehicle
- Model, year, color, and license plate number of the vehicle
- Odometer reading, Vehicle Identification Number (VIN), and delivery date of the vehicle
- Description of the problem

Coverage

Services are provided for the duration of the vehicle's powertrain warranty.

In the U.S., anyone driving the vehicle is covered. In Canada, a person driving the vehicle without permission from the owner is not covered.

Roadside Assistance is not a part of the New Vehicle Limited Warranty. General Motors North America and Chevrolet reserve the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

General Motors North America and Chevrolet reserve the right to limit services or payment to an owner or driver if they decide the claims are made too often, or the same type of claim is made many times.

Services Provided

- **Emergency Fuel Delivery:** Delivery of enough fuel for the vehicle to get to the nearest service station.
- **Lock-Out Service:** Service to unlock the vehicle if you are locked out. A remote unlock may be available if you have OnStar. For security reasons, the driver must present identification before this service is given.
- **Emergency Tow from a Public Road or Highway:** Tow to the nearest Chevrolet dealer for warranty service, or if the vehicle was in a crash and cannot be driven. Assistance is not given when the vehicle is stuck in the sand, mud, or snow.
- **Flat Tire Change:** Service to change a flat tire with the spare tire. The spare tire, if equipped, must be in good condition and properly inflated. It is the owner's responsibility for the repair or replacement of the tire if it is not covered by the warranty.
- **Battery Jump Start:** Service to jump start a dead battery.
- **Trip Interruption Benefits and Assistance:** If your trip is interrupted due to a warranty event, incidental expenses may be reimbursed within the Powertrain warranty period. Items considered are reasonable and customary hotel, meals, rental car, or a vehicle being delivered back to the customer, up to 500 miles.

Services Not Included in Roadside Assistance

- Impound towing caused by violation of any laws
- Legal fines
- Mounting, dismounting, or changing of snow tires, chains, or other traction devices

Service is not provided if a vehicle is in an area that is not accessible to the service vehicle or is not a regularly traveled or maintained public road, which includes ice and winter roads. Off-road use is not covered.

Services Specific to Canadian-Purchased Vehicles

- **Fuel Delivery:** Reimbursement is up to 7 liters. If available, diesel fuel delivery may be restricted. Propane and other fuels are not provided through this service.
- **Lock-Out Service:** Vehicle registration is required.

- **Trip Interruption Benefits and Assistance:** Must be over 150 km from where your trip was started to qualify. Pre-authorization, original detailed receipts, and a copy of the repair orders are required. Once authorization has been received, the Roadside Assistance advisor will help to make arrangements and explain how to receive payment.
- **Alternative Service:** If assistance cannot be provided right away, the Roadside Assistance advisor may give permission to get local emergency road service. You will receive payment, up to $100, after sending the original receipt to Roadside Assistance. Mechanical failures may be covered, however any cost for parts and labor for repairs not covered by the warranty are the owner responsibility.

Scheduling Service Appointments

When the vehicle requires warranty service, contact your dealer and request an appointment. By scheduling a service appointment and advising the service consultant of your transportation needs, your dealer can help minimize your inconvenience.

If the vehicle cannot be scheduled into the service department immediately, keep driving it until it can be scheduled for service, unless, of course, the problem is safety related. If it is, please call your dealership, let them know this, and ask for instructions.

If your dealer requests you to bring the vehicle for service, you are urged to do so as early in the work day as possible to allow for same-day repair.

Courtesy Transportation Program

To enhance your ownership experience, we and our participating dealers are proud to offer Courtesy Transportation, a customer support program for vehicles with the Bumper-to-Bumper (Base Warranty Coverage period in Canada), extended powertrain, and/or hybrid-specific warranties in both the U.S. and Canada.

Several Courtesy Transportation options are available to assist in reducing inconvenience when warranty repairs are required.

Courtesy Transportation is not a part of the New Vehicle Limited Warranty. A separate booklet entitled “Limited Warranty and Owner Assistance Information” furnished with each new vehicle provides detailed warranty coverage information.

Transportation Options

Warranty service can generally be completed while you wait. However, if you are unable to do so, your dealer may offer the following transportation options:

Shuttle Service

This includes one-way or round-trip shuttle service within reasonable time and distance parameters of your dealer's area.

Public Transportation or Fuel Reimbursement

If overnight warranty repairs are needed, and public transportation is used, the expense must be supported by original receipts and within the maximum amount allowed by GM for shuttle service. If U.S. customers arrange their own transportation, limited reimbursement for reasonable fuel expenses may be available. Claim amounts should reflect actual costs and be supported by original receipts. See your dealer for information.

Courtesy Rental Vehicle

For an overnight warranty repair, the dealer may provide an available courtesy rental vehicle or provide for reimbursement of a rental vehicle. Reimbursement is limited and must be supported by original receipts as well as a signed and completed rental agreement and meet state/ provincial, local, and rental vehicle provider requirements. Requirements vary and may include minimum age requirements, insurance coverage, credit card, etc. Additional fees such as fuel usage charges, taxes, levies, usage fees, excessive mileage, or rental usage beyond the completion of the repair are also your responsibility.

It may not be possible to provide a like vehicle as a courtesy rental.

Additional Program Information

All program options, such as shuttle service, may not be available at every dealer. Contact your dealer for specific availability.

General Motors reserves the right to unilaterally modify, change, or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

Collision Damage Repair

If the vehicle is involved in a collision and it is damaged, have the damage repaired by a qualified technician using the proper equipment and quality replacement parts. Poorly performed collision repairs diminish the vehicle resale value, and safety performance can be compromised in subsequent collisions.

Collision Parts

Genuine GM Collision parts are new parts made with the same materials and construction methods as the parts with which the vehicle was originally built. Genuine GM Collision parts are the best choice to ensure that the vehicle's designed appearance, durability, and safety are preserved. The use of Genuine GM parts can help maintain the GM New Vehicle Limited Warranty.

Recycled original equipment parts may also be used for repair. These parts are typically removed from vehicles that were total losses in prior crashes. In most cases, the parts being recycled are from undamaged sections of the vehicle. A recycled original equipment GM part may be an acceptable choice to maintain the vehicle's originally designed appearance and safety performance; however, the history of these parts is not known. Such parts are not covered by the GM New Vehicle Limited Warranty, and any related failures are not covered by that warranty.

Aftermarket collision parts are also available. These are made by companies other than GM and may not have been tested for the vehicle. As a result, these parts may fit poorly, exhibit premature durability/ corrosion problems, and may not perform properly in subsequent collisions. Aftermarket parts are not covered by the GM New Vehicle Limited Warranty, and any vehicle failure related to such parts is not covered by that warranty.

Repair Facility

GM also recommends that you choose a collision repair facility that meets your needs before you ever need collision repairs. Your dealer may have a collision repair center with GM-trained technicians and state-of-the-art equipment, or be able to recommend a collision repair center that has GM-trained technicians and comparable equipment.

Insuring the Vehicle

Protect your investment in the GM vehicle with comprehensive and collision insurance coverage. There are significant differences in the quality of coverage afforded by various insurance policy terms. Many insurance policies provide reduced protection to the GM vehicle by limiting compensation for damage repairs through the use of aftermarket collision parts. Some insurance companies will not specify aftermarket collision parts. When purchasing insurance, we recommend that you ensure that the vehicle will be repaired with GM original equipment collision parts. If such insurance coverage is not available from your current insurance carrier, consider switching to another insurance carrier.

If the vehicle is leased, the leasing company may require you to have insurance that ensures repairs with Genuine GM Original Equipment Manufacturer (OEM) parts or Genuine Manufacturer replacement parts. Read the lease carefully, as you may be charged at the end of the lease for poor quality repairs.

If a Crash Occurs

If there has been an injury, call emergency services for help. Do not leave the scene of a crash until all matters have been taken care of. Move the vehicle only if its position puts you in danger, or you are instructed to move it by a police officer.

Give only the necessary information to police and other parties involved in the crash.

For emergency towing see *Roadside Assistance Program* ⇨ *391*.

Gather the following information:

- Driver name, address, and telephone number
- Driver license number
- Owner name, address, and telephone number
- Vehicle license plate number
- Vehicle make, model, and model year
- Vehicle Identification Number (VIN)
- Insurance company and policy number
- General description of the damage to the other vehicle

Choose a reputable repair facility that uses quality replacement parts. See “Collision Parts” earlier in this section.

If the airbag has inflated, see *What Will You See after an Airbag Inflates?* ⇨ *90*.

Managing the Vehicle Damage Repair Process

In the event that the vehicle requires damage repairs, GM recommends that you take an active role in its repair. If you have a pre-determined repair facility of choice, take the vehicle there, or have it towed there. Specify to the facility that any required replacement collision parts be original equipment parts, either new Genuine GM parts or recycled original GM parts. Remember, recycled parts will not be covered by the GM vehicle warranty.

Insurance pays the bill for the repair, but you must live with the repair. Depending on your policy limits, your insurance company may initially value the repair using aftermarket parts. Discuss this with the repair professional, and insist on Genuine GM parts. Remember, if the vehicle is leased, you may be obligated to have the vehicle repaired with Genuine GM parts, even if your insurance coverage does not pay the full cost.

If another party's insurance company is paying for the repairs, you are not obligated to accept a repair valuation based on that insurance company's collision policy repair limits, as you have no contractual limits with that company. In such cases, you can have control of the repair and parts choices as long as the cost stays within reasonable limits.

Publication Ordering Information

Service Manuals

Service manuals have the diagnosis and repair information on the engine, transmission, axle, suspension, brakes, electrical system, steering system, body, etc.

Customer Literature

Owner’s manuals are written specifically for owners and are intended to provide basic operational information about the vehicle. The owner’s manual includes the Maintenance Schedule for all models.

Customer literature publications available for purchase include owner’s manuals, warranty manuals, infotainment manuals, and portfolios. Portfolios include an owner’s manual, warranty manual, infotainment manual, if applicable, and zip lock bag or pouch.

Current and Past Models

Service manuals and customer literature are available for many current and past model year GM vehicles.

To order, call 1-800-551-4123
Monday–Friday, 8:00 a.m.–6:00 p.m.
eastern time

For credit card orders only (VISA, MasterCard, or Discover), see Helm, Inc. at: www.helminc.com.

To order by mail, write to:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170

Make checks payable in U.S. funds.

Radio Frequency Statement

This vehicle has systems that operate on a radio frequency that complies with Part 15/Part 18 of the Federal Communications Commission (FCC) rules and with Innovation, Science and Economic Development (ISED) Canada's RSP-100 / license-exempt RSS's / ICES-001.

Operation is subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Reporting Safety Defects

Reporting Safety Defects to the United States Government

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying General Motors.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or General Motors.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to *http://www.safercar.gov;* or write to:

Administrator, NHTSA
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from *http://www.safercar.gov*.

Reporting Safety Defects to the Canadian Government

If you live in Canada, and you believe that the vehicle has a safety defect, notify Transport Canada immediately, and notify General Motors of Canada Company. Call Transport Canada at 1-800-333-0510; go to:

www.tc.gc.ca/recalls (English)

www.tc.gc.ca/rappels (French)

or write to:

Transport Canada
Motor Vehicle Safety Directorate
Defect Investigations and Recalls Division
80 Noel Street
Gatineau, QC J8Z 0A1

Reporting Safety Defects to General Motors

In addition to notifying NHTSA (or Transport Canada) in a situation like this, notify General Motors.

In the U.S., call 1-800-222-1020, or write:

Chevrolet Motor Division
Chevrolet Customer Assistance Center
P.O. Box 33170
Detroit, MI 48232-5170

In Canada, call 1-800-263-3777 (English) or 1-800-263-7854 (French), or write:

General Motors of Canada Company
Customer Care Centre,
Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

In Mexico, call 01-800-466-0811.

In other Central America and Caribbean Countries, call 52-722-236-0680.

Vehicle Data Recording and Privacy

The vehicle has a number of computers that record information about the vehicle's performance and how it is driven. For example, the vehicle uses computer modules to monitor and control engine and transmission performance, to monitor the conditions for airbag deployment and deploy them in a crash, and, if equipped, to provide antilock braking to help the driver control the vehicle. These modules may store data to help the dealer technician service the vehicle. Some modules may also store data about how the vehicle is operated, such as rate of fuel consumption or average speed. These modules may retain personal preferences, such as radio presets, seat positions, and temperature settings.

Event Data Recorders

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur.

Note

EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

GM will not access these data or share it with others except: with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee; in response to an official request by police or similar government office; as part of GM's defense of litigation through the discovery process; or, as required by law. Data that GM collects or receives may also be used for GM research needs or may be made available to others for research purposes, where a need is shown and the data is not tied to a specific vehicle or vehicle owner.

OnStar

If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected through the OnStar system. This includes information about the vehicle’s operation; collisions involving the vehicle; the use of the vehicle and its features; and, in certain situations, the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

See *OnStar Additional Information* ⇨ *403*.

Infotainment System

If the vehicle is equipped with a navigation system as part of the infotainment system, use of the system may result in the storage of destinations, addresses, telephone numbers, and other trip information. See the infotainment manual for information on stored data and for deletion instructions.

OnStar

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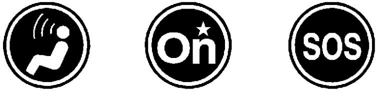
OnStar Overview



🗣 Voice Command Button

On Blue OnStar Button

SOS Red Emergency Button

This vehicle may be equipped with a comprehensive, in-vehicle system that can connect to an OnStar Advisor for Emergency, Security, Navigation, Connections, and Diagnostics Services. OnStar services may require a paid service plan and data plan. OnStar requires the vehicle battery and electrical system, cellular service, and GPS satellite signals to be available and operating. OnStar acts as a link to existing emergency service providers. OnStar may collect information about you and your vehicle, including location information. See OnStar User Terms, Privacy Statement, and Software Terms for more details including system limitations at www.onstar.com (U.S.) or www.onstar.ca (Canada).

The OnStar system status light is next to the OnStar buttons. If the status light is:

- Solid Green: System is ready.
- Flashing Green: On a call.
- Red: Indicates a problem.
- Off: System is off. Press On twice to speak with an OnStar Advisor.

Press On or call 1-888-4ONSTAR (1-888-466-7827) to speak to an Advisor.

Functionality of the Voice Command button may vary by vehicle and region.

Press ☎ to:

- Open the OnStar app on the infotainment display. See the infotainment manual for information on how to use the OnStar app.

Or

- Make a call, end a call, or answer an incoming call.
- Give OnStar Hands-Free Calling voice commands.
- Give OnStar Turn-by-Turn Navigation voice commands.
- Obtain and customize the Wi-Fi hotspot name or SSID and password, if equipped.

Press On to connect to an Advisor to:

- Verify account information or update contact information.
- Get driving directions.
- Receive a Diagnostic check of the vehicle's key operating systems.
- Receive Roadside Assistance.
- Manage Wi-Fi Settings, if equipped.

Press SOS to get a priority connection to an OnStar Advisor available 24/7 to:

- Get help for an emergency.
- Be a Good Samaritan or respond to an AMBER Alert.
- Get assistance in severe weather or other crisis situations and find evacuation routes.

OnStar Services

Emergency

Emergency Services require an active safety and security plan. With Automatic Crash Response, built-in sensors can automatically alert a specially trained OnStar Advisor who is immediately connected in to the vehicle to help.

Press SOS for a priority connection to an OnStar Advisor who can contact emergency service providers, direct them to your exact location, and relay important information.

With OnStar Crisis Assist, specially trained Advisors are available 24 hours a day, 7 days a week, to provide a central point of contact, assistance, and information during a crisis.

With Roadside Assistance, Advisors can locate a nearby service provider to help with a flat tire, a battery jump, or an empty gas tank.

Security

If equipped, OnStar provides these services:

- With Stolen Vehicle Assistance, OnStar Advisors can use GPS to pinpoint the vehicle and help authorities quickly recover it.
- With Remote Ignition Block, if equipped, OnStar can block the engine from being restarted.
- With Stolen Vehicle Slowdown, if equipped, OnStar can work with law enforcement to gradually slow the vehicle down.

Theft Alarm Notification

If equipped, if the doors are locked and the vehicle alarm sounds, a notification by text, e-mail, or phone call will be sent. If the vehicle is stolen, an OnStar Advisor can work with authorities to recover the vehicle.

OnStar Additional Information

In-Vehicle Audio Messages

Audio messages may play important information at the following times:

- Prior to vehicle purchase. Press On to set up an account.
- After change in ownership and at 90 days.

Transferring Service

Press On to request account transfer eligibility information. The Advisor can cancel or change account information.

Selling/Transferring the Vehicle

Call 1-888-4ONSTAR (1-888-466-7827) immediately to terminate your OnStar or connected services if the vehicle is disposed of, sold, transferred, or if the lease ends.

Reactivation for Subsequent Owners

Press On and follow the prompts to speak to an Advisor as soon as possible. The Advisor will update vehicle records and explain OnStar or connected service options.

How OnStar Service Works

Automatic Crash Response, Emergency Services, Crisis Assist, Stolen Vehicle Assistance, Remote Services, Roadside Assistance, and Hands-Free Calling are available on most vehicles. Not all OnStar services are available everywhere or on all vehicles. For more information, a full description of OnStar services, system limitations, and OnStar User Terms, Privacy Statement, and Software Terms:

- Call 1-888-4ONSTAR (1-888-466-7827).
- See www.onstar.com (U.S.).
- See www.onstar.ca (Canada).
- Call TTY 1-877-248-2080.

- Press On to speak with an Advisor.

OnStar or connected services cannot work unless the vehicle is in a place where OnStar has an agreement with a wireless service provider for service in that area. The wireless service provider must also have coverage, network capacity, reception, and technology compatible with OnStar or connected services. Service involving location information about the vehicle cannot work unless GPS signals are available, unobstructed, and compatible with the OnStar hardware. OnStar or connected services may not work if the OnStar equipment is not properly installed or it has not been properly maintained. If equipment or software is added, connected, or modified, OnStar or connected services may not work. Other problems beyond the control of OnStar — such as hills, tall buildings, tunnels, weather, electrical system design and architecture of the vehicle, damage to the vehicle in a crash, or wireless phone network congestion or jamming — may prevent service.

See *Radio Frequency Statement* ⇨ *397*.

Services for People with Disabilities

Advisors provide services to help with physical disabilities and medical conditions.

Press On to help:

- Locate a gas station with an attendant to pump gas.
- Find a hotel, restaurant, etc., that meets accessibility needs.
- Provide directions to the closest hospital or pharmacy in urgent situations.

TTY Users

OnStar has the ability to communicate to deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available dealer-installed TTY system can provide in-vehicle access to all OnStar services, except Virtual Advisor and OnStar Turn-by-Turn Navigation.

OnStar Personal Identification Number (PIN)

A PIN is needed to access some OnStar services. The PIN will need to be changed the first time when speaking with an Advisor. To change the OnStar PIN, contact an OnStar Advisor by pressing On or calling 1-888-4ONSTAR.

Warranty

OnStar equipment may be warranted as part of the vehicle warranty.

Languages

The vehicle can be programmed to respond in multiple languages.

Press On and ask for an Advisor. Advisors are available in English, Spanish, and French. Available languages may vary by country.

Potential Issues

OnStar cannot perform Remote Door Unlock or Stolen Vehicle Assistance after the vehicle has been off continuously for 10 days without an ignition cycle. If the vehicle has not been started for 10 days, OnStar can contact Roadside Assistance or a locksmith to help gain access to the vehicle.

Global Positioning System (GPS)

- Obstruction of the GPS can occur in a large city with tall buildings; in parking garages; around airports; in tunnels and underpasses; or in an area with very dense trees. If GPS signals are not available, the OnStar system should still operate to call OnStar. However, OnStar could have difficulty identifying the exact location.
- In emergency situations, OnStar can use the last stored GPS location to send to emergency responders.

A temporary loss of GPS can cause loss of the ability to send a Turn-by-Turn Navigation route. The Advisor may give a verbal route or may ask for a call back after the vehicle is driven into an open area.

Cellular and GPS Antennas

Cellular reception is required for OnStar to send remote signals to the vehicle. Do not place items over or near the antenna to prevent blocking cellular and GPS signal reception.

Unable to Connect to OnStar Message

If there is limited cellular coverage or the cellular network has reached maximum capacity, this message may come on. Press On to try the call again or try again after driving a few miles into another cellular area.

Vehicle and Power Issues

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for features to function properly. These systems may not operate if the battery is discharged or disconnected.

Add-on Electrical Equipment

The OnStar system is integrated into the electrical architecture of the vehicle. Do not add any electrical equipment. See *Add-On Electrical Equipment* ⇨ *286*. Added electrical equipment may interfere with the operation of the OnStar system and cause it to not operate.

Vehicle Software Updates

OnStar or GM may remotely deliver software updates or changes to the vehicle without further notice or consent. These updates or changes may enhance or maintain safety, security, or the operation of the vehicle or the vehicle systems. Software updates or changes may affect or erase data or settings that are stored in the vehicle, such as OnStar Hands-Free Calling name tags, saved navigation destinations, or pre-set radio stations. Neither OnStar nor GM is responsible for any affected or erased data or settings. These updates or changes may also collect personal information. Such collection is described in the OnStar privacy statement or separately disclosed at the time of installation. These updates or changes may also cause a system to automatically communicate with GM servers to collect information about vehicle system status, identify whether updates or changes are available, or deliver updates or changes. An active OnStar agreement constitutes consent to these software updates or changes and agreement that either OnStar or GM may remotely deliver them to the vehicle.

Privacy

The complete OnStar Privacy Statement may be found at www.onstar.com (U.S.), or www.onstar.ca (Canada). We recommend that you review it. If you have any questions, call 1-888-4ONSTAR (1-888-466-7827) or press On to speak with an Advisor. Users of wireless communications are cautioned that the privacy of any information sent via wireless cellular communications cannot be assured. Third parties may unlawfully intercept or access transmissions and private communications without consent.

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www.onstar.com/us/en/

libcurl:

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unzip:

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Connected Services

Connected Services

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Connected Services

Navigation

Navigation requires a specific OnStar or connected service plan.

Press On to receive Turn-by-Turn directions or have them sent to the vehicle's navigation screen, if equipped.

Turn-by-Turn Navigation

1. Press On to connect to an Advisor.
2. Request directions to be downloaded to the vehicle.
3. Follow the voice-guided commands.

Using Voice Commands During a Planned Route

Functionality of the Voice Command button, if equipped, may vary by vehicle and region. For some vehicles, press 🗣 to open the OnStar app on the infotainment display. For other vehicles press 🗣 as follows.

Cancel Route

1. Press 🗣. System responds: "OnStar ready," then a tone.
2. Say "Cancel route." System responds: "Do you want to cancel directions?"
3. Say "Yes." System responds: "OK, request completed, thank you, goodbye."

Route Preview

1. Press 🗣. System responds: "OnStar ready," then a tone.
2. Say "Route preview." System responds with the next three maneuvers.

Repeat

1. Press 🗣. System responds: "OnStar ready," then a tone.

2. Say “Repeat.” System responds with the last direction given, then responds with “OnStar ready,” then a tone.

Get My Destination

1. Press ☎. System responds: “OnStar ready,” then a tone.
2. Say “Get my destination.” System responds with the address and distance to the destination, then responds with “OnStar ready,” then a tone.

Send Destination to Vehicle

Directions can be sent to the vehicle’s navigation screen, if equipped.

Press On, then ask the Advisor to download directions to the vehicle’s navigation system, if equipped. After the call ends, the navigation screen will provide prompts to begin driving directions. Routes that are sent to the navigation screen can only be canceled through the navigation system.

See www.onstar.com (U.S.) or www.onstar.ca (Canada).

Connections

The following services help with staying connected.

For coverage maps, see www.onstar.com (U.S.) or www.onstar.ca (Canada).

Ensuring Security

- Change the default passwords for the Wi-Fi hotspot and myChevrolet mobile application. Make these passwords different from each other and use a combination of letters, numbers, and symbols to increase the security.
- Change the default name of the SSID (Service Set Identifier). This is your network’s name that is visible to other wireless devices. Choose a unique name and avoid family names or vehicle descriptions.

Wi-Fi Hotspot (If Equipped)

The vehicle may have a built-in Wi-Fi hotspot that provides access to the Internet and web content at 4G LTE speed. Up to seven mobile devices can be connected. A data plan is required. Use the in-vehicle controls only when it is safe to do so.

1. To retrieve Wi-Fi hotspot information, press ☎ to open the OnStar app on the infotainment display, then select Wi-Fi Hotspot. On some vehicles, touch Wi-Fi or Wi-Fi Settings on the screen.
2. The Wi-Fi settings will display the Wi-Fi hotspot name (SSID), password, and on some vehicles, the connection type (no Internet connection, 3G, 4G, 4G LTE), and signal quality (poor, good, excellent).
3. To change the SSID or password, press On or call 1-888-4ONSTAR to connect with an Advisor. On some

vehicles, the SSID and password can be changed in the Wi-Fi Hotspot menu.

After initial set-up, your vehicle's Wi-Fi hotspot will connect automatically to your mobile devices. Manage data usage by turning Wi-Fi on or off on your mobile device, using the myChevrolet mobile app, or by contacting an OnStar Advisor. On some vehicles, Wi-Fi can also be managed from the Wi-Fi Hotspot menu.

MyChevrolet Mobile App (If Available)

Download the myChevrolet mobile app to compatible Apple and Android smartphones. Chevrolet users can access the following services from a smartphone:

- Remotely start/stop the vehicle, if factory-equipped.
- Lock/unlock doors, if equipped with automatic locks.
- Activate the horn and lamps.
- Check the vehicle's fuel level, oil life, or tire pressure, if factory-equipped with the Tire Pressure Monitor System.
- Send destinations to the vehicle.
- Locate the vehicle on a map (U.S. market only).
- Turn the vehicle's Wi-Fi hotspot on/off, manage settings, and monitor data consumption, if equipped.
- Locate a dealer and schedule service.
- Request roadside assistance.
- Set a parking reminder with pin drop, take a photo, make a note, and set a timer.
- Connect with Chevrolet on social media.

Features are subject to change. For myChevrolet mobile app information and compatibility, see my.chevrolet.com.

An active OnStar or connected service plan may be required. A compatible device, factory-installed remote start, and power locks are required. Data rates apply. See www.onstar.com for details and system limitations.

Remote Services

Contact an OnStar Advisor to unlock the doors or sound the horn and flash the lamps.

Marketplace

OnStar Advisors can provide offers from restaurants and retailers on your route, help locate hotels, or book a room. These services vary by market.

OnStar Hands-Free Calling

Make and receive calls with the built-in wireless calling service, which requires available minutes. Functionality of the Voice Command button may vary by vehicle and region. For some vehicles, press ☎ to open the OnStar app on the infotainment display, then select Hands-Free calling. For other vehicles press ☎ as follows.

Make a Call

1. Press ☎. System responds: “OnStar ready.”
2. Say “Call.” System responds: “Call. Please say the name or number to call.”
3. Say the entire number without pausing, including a “1” and the area code. System responds: “OK, calling.”

Calling 911 Emergency

1. Press ☎. System responds: “OnStar ready.”
2. Say “Call.” System responds: “Call. Please say the name or number to call.”
3. Say “911” without pausing. System responds: “911.”
4. Say “Call.” System responds: “OK, dialing 911.”

Retrieve My Number

1. Press ☎. System responds: “OnStar ready.”
2. Say “My number.” System responds: “Your OnStar Hands-Free Calling number is,” then says the number.

End a Call

Press ☎. System responds: “Call ended.”

Verify Minutes and Expiration

Press ☎ and say “Minutes” then “Verify” to check how many minutes remain and their expiration date.

Diagnostics

By monitoring and reporting on the vehicle's key systems, OnStar Advanced Diagnostics, if equipped, provides a way to keep up on maintenance. Capabilities vary by model. See www.onstar.com for details and system limitations. Features are subject to change. For updates on feature capabilities, see my.chevrolet.com. Message and data rates may apply.

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⚠ WARNING

Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

U.S. Only

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